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Mind as a Cause
and
Cure of Disease

ELI BEERS



Mind as a Cause and Cure of Disease

*Presented from a Medical, Scientific and
Religious Point of View*

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PREFACE

The object of this work is to show, from the testimony of medical and scientific men, the marvellous power of the mind over the body. Its contents prove conclusively that, generally speaking, wrong or inharmonious mental states are a very prolific cause of disease, and produce a deleterious effect on all the functions of the body; whereas, on the other hand, right or harmonious mental conditions are equally potent to heal, and have a beneficial effect instead. Therefore, to pass from a wrong, or inharmonious, to a right, or harmonious, state of consciousness must result in a cure, and that such is the case is capable of demonstration by everybody. Hence, to be well one should carefully avoid all wrong states of thought and feeling and establish right ones in their stead; nor can real or permanent healing be obtained in any other way.

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ELI BEERS.

CHICAGO, February, 1914.

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CHAPTER I

THE RELATION OF THE MIND TO DISORDERS OF SENSATION

To what extent sensation is physical and to what extent it is mental is a matter regarding which there is a great diversity of view. Dugal Stewart, the distinguished Scotch metaphysician, quotes Thomas Melville as saying: "No man can demonstrate that the objects of sense exist without him; we are conscious of nothing but our own sensations; however, by the uniformity, regularity, consistency and steadiness of the impression, we are lead to believe that they have a real and durable cause without us; and we observe not any thing which contradicts this opinion" (36:414).*

According to the old classification there were five so-called senses: seeing, hearing, smelling, tasting and feeling. From the standpoint of a later and more exact classification the last, that of feeling, is resolved into several separate senses or aspects of sensation, viz., touch, weight, temperature and so forth (see 12:215-24). Similar additions have been made to other senses. Hence it is said that "The normal man or woman has not only five senses, but at least a dozen."

Sensation is experienced through certain organs, which serve as so many media or avenues of communication between the soul on the one hand and all the activities going on in the seeming, or generally acknowledged, external world on the other. Therefore experience in this realm must be determined or limited by the nature

* In the references the number before the colon is to the list of works given at the end of this book and the number (or numbers) after it is to the page (or pages) of the work from which the quotation or extract has been taken.

or condition of the organs themselves. Such being the case, it follows of necessity that, unless persons are born with the organs of sensation in exactly the same state or condition, they are not born in the same relationship to the phenomena in the outer world. Moreover, that they are not so born is very evident. Romberg observes: "There are many persons whose hearing generally is good, but whose power of hearing high notes is very limited. The range of hearing differs in different individuals" (29: vol. 1, 244). Likewise Prof. Dolbear, in his very interesting work on *Matter, Ether, and Motion*, says that the ear of an ordinary individual is able to take in vibrations or impulses varying all the way from twenty or thirty up to twenty-five thousand or so per second, while there are persons who have the sense of hearing so acute as to be able to take in as many as fifty or sixty thousand vibrations per second (see 13:262-3). But if one person can perceive only from twenty or thirty up to twenty or thirty thousand vibrations per second, while another individual can take in from twenty or thirty up to forty or sixty thousand in the same time, it follows logically that one of these persons is living in a world of sound twice as large as the other and must continue to do so as long as the organs of hearing of each remain in the same condition. And what is true of hearing is true to a greater or less extent of every organ of sensation. Hence we are driven to the conclusion that the experiences of one individual in the realm of sensation are not necessarily a reliable criterion by which to determine those of another.

Furthermore, not only do we find that people are born with the organs of sensation in a more or less imperfect condition, but, not unfrequently, in such a condition as to render them practically valueless. For instance, they are born blind or they are born deaf. According to the testimony of able physiologists, if a

person has never had the use of a particular organ of sensation, then that person can never be made to fully comprehend any of those experiences which come through that particular channel. That is to say, a person born blind can never be made to accurately understand what you mean by color; a person born deaf, what you mean by harmony or distinction in sound. In this case, however, it usually happens that one or more of the other organs becomes more highly developed. For example, if persons have been born blind or otherwise deprived of sight, then they are likely to have a very remarkable sense of touch. It is said of Saunderson, who was a Professor of Mathematics at Cambridge, England, and who was blind from the time he was two years old, that, by the use of this sense, he could "distinguish genuine medals from imitations" with greater accuracy "than many connoisseurs in full possession of their senses" (11:706). Van Norden in his work, *The Psychic Factor*, relates the case of a person in Switzerland born blind who could do the most exquisite work in carving, even to the carving of the form and features of the human face (see 45:135). Likewise Dr. William B. Carpenter, the distinguished writer on physiology, speaks of persons who, although blind, could "distinguish the colours of surfaces which were similar in other respects," and says that they were probably able to do this because their sense of touch was so acute as to enable them to distinguish the difference in "the position and arrangement of the particles composing the surface," whereby there arises the absorption of some rays and the reflection of others, inasmuch as, in course of time, they had learned to associate this change of formation with certain colors (11:707).

Still again, it sometimes happens that the sense of smell is affected in a similar manner. For instance, it is said that James Mitchell, "who was blind, deaf, and dumb, from his birth," could distinguish not only mem-

bers of the family to which he belonged but others by this sense. Humboldt, too, records that the Peruvian Indians could in this way tell in the "middle of the night" the nationality to which a person belonged (11:717). Physicians testify that prisoners have an odor peculiar to the criminal class and certain facts go to show that there is a power in mental states to give a peculiar chemical quality to all the substances of the body. Then, inasmuch as no two persons are alike mentally they can not be alike physically. Moreover, there is reason to suppose that these effects of the mind upon the body extend also to the clothing that we wear and to everything that we touch. Otherwise how would it be possible for a dog to follow his master by the smell of his footsteps? And why should it seem more strange that a person should be able to distinguish another by the sense of smell than by that of sight; for, according to the teaching of eminent physiologists, every sensation ultimately resolves itself down to one, namely, that of touch or feeling? (See 12: 217-18.)

With regard to the improving of the organs of sensation, Unzer observes: "Frequent use has no slight effect in changing and perfecting the animal functions. By use alone the perception becomes more acute, for the musician perceives the least discord, and is annoyed by that which a person not a musician never notices" (18:444). The question naturally arises, Along with this greater development of sensation, does there take place a corresponding change in the physical organism—that is to say, in the substance of the organ through which the particular sensation is experienced? We should expect so and, if this be true, then just as it is possible to develop the muscles of the body by the expenditure of energy through this particular channel, so is it also possible to develop the organs of sensation in the same manner and, by this process, to greatly en-

large and perfect the relation which the soul sustains to all the phenomena of the outer world.

Not unfrequently, however, partial or complete loss of some phase of sensation arises from a very disturbed mental state. Sir Astley Cooper tells of a little girl ten years old who one evening went into a dark room to get a knife, when one of her playmates, just in fun, sprang out from behind a door to startle her. So severe was the fright that she became stone deaf and "three months after this had happened . . . continued in this deplorable state" (6:172-3). Says Dr. Dalby: "I have known the hearing in apparently healthy subjects to be almost completely lost on the witnessing a sudden death of a near relative; on several occasions, immediately upon the receipt of news of a painful nature; in the case of women, upon the fright produced by a cry of fire or an alarm of burglars in the house; at the witnessing of the terrible sight of a man cutting his throat; once on the receipt of great good fortune which had not been anticipated. On each of these occasions the hearing power of the patient was always perfectly good up to the time of the catastrophe, and immediately afterwards the deafness was intense, so that the change in all probability was almost instantaneous" (6:173).^{*} These effects of disturbed states of consciousness pertain not only to hearing but also to the other aspects of sensation.

1. The Power of Mind to Produce and Modify Sensation

We now proceed to a discussion of the power there is in the mind to produce every conceivable variety of sensation. More than half a century ago John Hunter, "who," according to Dr. Tuke, "might have been as

^{*} In some instances where I have quoted from authors I have, as here, given my reference to the same passage in the work of another person, instead of to the original production from which it was derived.

great a metaphysician as he was a physiologist," made the concise but significant statement, "I am confident that I can fix my attention to any part until I have a sensation in that part" (1:vol. 1, 124). Likewise, Dr. Tuke himself, commenting on experiences of this sort, remarks: "If twenty persons direct their attention to their little fingers for five or ten minutes, the result will be something like this: A few will be unconscious of any sensation in this member; some will experience decided sensation—aching, pain (dysæsthesia), throbbing (hyperæsthesia), etc.; and the majority will feel a slight sense of weight (æsthesia) and tingling (paræsthesia). This simple experiment raises several questions, as, Might sensations always be felt in the part from the changes which are constantly going forward in the tissues, but are unobserved except when the attention is directed to them? Or, does the act of Attention excite increased vascularity of the sensory ganglia and cause subjective sensations? Or, lastly, do the sympathetic centres become excited, and the vasomotor nerves influenced, so as to cause temporary vascular changes in the finger which involve sensation? The first supposition does not seem probable, except to a very slight extent. If correct, we should always feel some sensation in the finger when consciousness is directed towards it. We think both the remaining suppositions have weight. Probably the feeling experienced is partially subjective; but we believe there is a real effect produced upon the finger if Thought is sufficiently long directed to it, and that these vascular changes are felt in the form of throbbing, weight, etc. Other changes are more likely to be subjective.

"Mr. Braid tells us in his little book on *Hypnotism* that he requested four gentlemen, in good health, and from forty to fifty-six years of age, to lay their arms on a table with the palms of their hands upwards. Each was to look at the palm of his hand for a few minutes

with fixed attention, and watch the result. Entire silence was enjoined. What happened? 'In about five minutes, the first, one of the present members of the Royal Academy, stated that he felt a sensation of *great cold* in the hand; another, who is a very talented author, said that for some time he thought nothing was going to happen, but at last a *darting, pricking* sensation took place from the palm of the hand, as if electric sparks were being drawn from it; the third gentleman, lately mayor of a large borough, said that he felt a very uncomfortable sensation of heat come over his hand; the fourth, secretary to an important association, had become rigidly cataleptic, his arm being firmly fixed to the table.'

"It would be difficult to determine in these instances by what train of thought these different results came to pass; whether each imagined that such and such effects would be produced by the process, or whether an accidental condition of the hand at the moment caused certain very slight suggestions, which were intensified by the Attention directed to them. Probably the former; but one thing is certain, that had Mr. Braid suggested other effects, instead of preserving silence, the character of the sensations would have been greatly modified" (6:56-8).

To show the potent effect of *suggestion* on sensation, we quote the following passage from the same author: "Mr. Braid, in investigating the alleged discoveries of Reichenbach in regard to the Od force, found that in nearly all cases, even when the person had not been hypnotized, drawing a magnet or other object slowly from the wrist to the point of the fingers produced various effects. Among these were 'a change of temperature, tingling, creeping, pricking,' while, when he reversed the motion, 'it was generally followed by a change of symptoms *from the altered current of ideas then suggested*. Moreover, if any idea of what might be ex-

pected existed in the mind previously, or was suggested orally during the process, it was generally very speedily realized. The above patients being now requested to look aside, or a screen having been interposed so as to prevent their seeing what was being done, if they were requested to describe their sensations during the repetition of the processes, similar phenomena were stated to be realized when there was nothing whatever done beyond watching them, and noting their responses'” (6:64-5).

Likewise the following from the same writer is no less instructive: “Mr. Braid gives the case of a lady, above fifty-six, who had, when young, been a somnambulist, but in perfect health and wide awake when the experiment was tried. Having been placed in a dark closet, and desired to look at the poles of a powerful horse-shoe magnet, and describe what she saw, she ‘declared, after looking a considerable time, that she saw nothing.’ However, after Mr. Braid told her to look attentively, and she would see fire come out of it, *she speedily saw sparks*, and presently it seemed to her to burst forth as if she had witnessed an artificial representation of the volcano of Mount Vesuvius at some public gardens. Mr. Braid then closed down the lid of the trunk which contained the magnet, but still the same appearances were described as visible. ‘By putting leading questions, and asking her to describe what she saw from *another* part of the closet (where there was nothing but bare walls), she went on describing various shades of most brilliant coruscations and flame, according to the leading questions I had put for the purpose of changing the fundamental ideas. On repeating the experiments, similar results were repeatedly realized by this patient. On taking this lady into the same closet after the magnet had been removed to another part of the house, she still perceived the same visible appearances of light and flame, when there was

nothing but the bare walls to produce them; and two weeks after the magnet was removed, when she went into the closet by herself, the mere association of ideas was sufficient to cause her to realize a visible representation of the same light and flame.' The force of this illustration would remain exactly the same if it should be proved that a light, only visible to 'sensitives,' does proceed from magnets" (6:74-5).

Referring to this experiment, Dr. Carpenter remarks: "Other 'subjects' taken by Mr. Braid into his dark closet, and unable to see anything in the first instance, when told to look steadily at a certain point (though there was no magnet there), and assured that they would see flame and light of various colours issuing from it, very soon declared that they saw them; and in some of them, 'individuals of a highly concentrative and imaginative turn of mind,' the same sensations could be called up in open daylight (30:161-2). . . .

"It is obvious that, if the principle be once admitted that *real Sensations are producible by Mental states*, this principle furnishes the key to the explanation of a large number of those 'spiritualistic' experiences, in which objects are affirmed to be actually seen and felt, that only exist in the imagination of the 'subjects' of them" (30:164-5).

In all probability, as Dr. Carpenter asserts, a "large number" of such "experiences" are capable of "explanation" on this basis, but not necessarily *all*; for, if so, might not this power of the mind to produce sensations, for a similar reason, be construed to prove the non-reality of sensations of any kind being produced by forces or agencies acting upon us from without?

Dr. Tuke, speaking of the mind under the aspects of intellect and emotion, affirms that it "may excite ordinary sensation (*æsthesia*) which in addition, may be either excessive (*hyperæsthesia*), or diminished (*anæsthesia*), while it may also induce perverted sensation

(paræsthesia), which when painful, constitutes dysæsthesia" (6:56, 154). That this very sweeping assertion is correct there is abundant evidence to prove. Says Sir Benjamin Brodie: "A gentleman of my acquaintance, of a very sensitive and imaginative turn of mind, informed me that not infrequently when he had his thoughts intensely fixed for a considerable time, on an absent or imaginary object, he had at last seen it projected on the opposite wall, though only for a brief space of time, with all the brightness and distinctness of reality" (6:71).

That such an experience would be possible, is very evident. For instance, Sir Isaac Newton in a letter to Locke, informs us that he was once engaged in carrying on an experiment which consisted in looking at the reflection of the sun in a mirror and then directing his gaze to a dark portion of the room till the spectrum vanished. On one occasion, having done this three times, he thought he would see what the effect would be if, when the impression had almost faded away, he intently fixed his mind or attention upon it. The result was that the spectrum returned with all the vividness of reality. He proceeds to state that "after this I found that so often as I went into the dark and intended my mind upon them (the light and colors) as when a man looks earnestly to see anything which is difficult to be seen, I could make the phantasm return without looking any more upon the sun, and the oftener I made it return, the more easily I could make it return again." At length, says he, I was obliged to confine myself in a dark room for several days "to divert my Imagination from the sun; for if I thought upon him I presently saw his picture though I was in the dark." In this way and by directing his attention to other things he succeeded in a few days of ridding himself of this nuisance. But the most remarkable circumstance connected with his experiment was this—that, whereas he had only

looked at the reflection in the mirror with his right eye, "my Fancy," to use his own language, "began to make an impression on my left eye as well as upon my right" (6:70).

Commenting on this incident, we see, says Dr. Tuke, "that here the powerful direction of Thought or Attention produced the same effect on the left eye, or a point in the corresponding optic perceptive centre, as that of the sun itself upon the right eye" (6:70-71).

In an article in the *Fortnightly Review* for February, 1872, Mr. G. H. Lewes, in speaking of Charles Dickens, says that he once told him that he heard every word he put into the mouths of his characters. "I was at first," he remarks, "not a little puzzled to account for the fact that he could hear language so utterly unlike the language of real feeling, and not be aware of its preposterousness; but the surprise vanished when I thought of the phenomena of hallucination" (6:77-8).

This peculiar effect of the mind in producing sight and hearing applies equally well to every kind of sensation as is evident from numerous examples. An excellent illustration of the effect of the mind or imagination not only upon sight and hearing, but also feeling as well, is found in the following amusing incident related by Dr. Braid: "Two captains of merchant vessels arrived in port at the same time, and went to take up their quarters in their usual lodgings. They were informed by the landlady of the house, however, that she was very sorry that she could not accommodate them on that occasion, as the only bedroom which she could have appropriated for their use was occupied by the corpse of a gentleman just deceased. Being most anxious to remain in their accustomed lodgings, almost on any terms, rather than go elsewhere, they offered to sleep in the room wherein the dead body was laid out. To this the landlady readily gave her assent, considering it better, so far as *she* was concerned, to have three **such**

customers in her room than only one, and he a dead one. Having repaired to bed, one of the gentlemen, who was a very great wag, began a conversation with the other, by asking him if he had ever before slept in a room with a corpse in it, to which he replied 'No.' 'Then,' said the other, 'are you aware of the remarkable circumstance that always, in such cases, after midnight, the room gets filled with canaries, which fly about and sing in the most beautiful manner?' His companion expressed his surprise at this. But no sooner said than realized; for, the candle having been put out, presently there was a burst of music, as if the room really was full of canaries, which were not only *heard*, but at length the horrified novice in the chamber of death avowed that he both *saw* and *felt* the birds flying in all directions and plunging against him. In a short time he became so excited that, without taking time to do his toilet, he rushed down stairs in his nightdress, assuring the astonished household of the fact, and insisting that the room really was *quite full of birds*, as he could testify from the evidence of his senses, for he had not only *heard* them, but also *seen* and *felt* them *flapping their wings against him*" (6:171-2).

On this amusing occurrence Dr. Tuke remarks as follows: "The captain had some excuse for saying he *heard* them, although not for seeing or feeling them, for his companion had really imitated the note of the canary by blowing through a reed dipped in water" (6:172).

The following on the sense of smell, related by Prof. Bennett, is especially suggestive: "A clergyman told me, that some time ago suspicions were entertained in his parish of a woman, who was supposed to have poisoned her newly-born infant. The coffin was exhumed, and the procurator-fiscal who attended with the medical men to examine the body, declared that he already perceived the odour of decomposition, which made

him feel faint, and in consequence, he withdrew. But, on opening the coffin, it was found to be empty, and it was afterwards ascertained that no child had been born, and consequently no murder committed" (3:15.)

As regards the sense of taste Dr. Tuke observes: "So with the sense of taste. 'Hold your tongue!' exclaimed a Frenchman, 'I cannot taste my dinner.' The conversation distracted his Attention, and would not allow him to dwell upon his viands with the gusto which a gourmand desires. With imaginative people, the food eaten or the fluid drunk assumes a very different taste, according to the fancy. Misled by Expectation, the grumbler finds the meat tastes bad; the water is abominable. I have known a gentleman hopelessly fanciful, send out the cream from table because it tasted sour, and found it sweet when the servant brought in what was supposed to be, but was not, a fresh supply" (6:80).

When the appetite becomes extravagantly excessive, as in the following cases, it is probably due to an abnormal mental state or condition which has become permanent: "A disease has been described under the name of *Bulimia*, in which the patient is affected with an inordinate appetite, which nothing can satiate, and which his will seems powerless to resist. One individual whose case is recorded in the *Transactions of the Royal Society*, would eat an ordinary leg of veal at a single meal, adding to it a store of sow-thistles, and other wild vegetables. Another would devour raw, and even living, cats, rats, and dogs, the entrails of animals, and candles, to the extent of fourteen pounds daily" (28: vol. I, 102).

The effect of a mental state on the sensation of cold is strikingly illustrated in the following example from *The Psychic Treatment of Nervous Disorders*, by Prof. Dubois: "One of my friends went into the barber's in winter, and put his chilled feet on one of those ornamental brass rests with which everyone is familiar. Im-

mediately he felt a gentle warmth steal over his feet, and said to himself: 'Now, that is a practical idea; you can put your feet up and get them warmed at the same time!' He could not believe his senses when the absence of all heating apparatus was proved to him" (31:111).

The following incident, related by Erasmus Darwin, is even more remarkable: "A young farmer in Warwickshire, finding his hedges broken and the sticks carried away during a frosty season, determined to watch for the thief. He lay many cold hours under a haystack, and at length an old woman, like a witch in a play, approached, and began to pull up the hedge; he waited till she had tied up her bundle of sticks, and was carrying them off, that he might convict her of the theft, and then springing from his concealment he seized his prey with violent threats. After some altercation, in which her load was left upon the ground, she kneeled upon the bundle of sticks, and raising her arms to heaven beneath the bright moon, then at the full, spoke to the farmer, already shivering with cold, '*Heaven grant that thou never mayest know again the blessing to be warm.*' He complained of cold all the next day, and wore an upper coat, and in a few days another, and in a fortnight took to his bed, always saying nothing made him warm; he covered himself with very many blankets, and had a sieve over his face as he lay; and from this one insane idea he kept his bed above twenty years, for fear of the cold air, till at length he died" (6:165). On this strange event Dr. Tuke comments as follows: "Although the exposure to the cold of a frosty night had, no doubt, considerable influence in causing a chill in the first instance, the power of Fear in sustaining the morbid and purely subjective sensation of cold afterwards, cannot be denied" (6:165).

Similar effects can take place in a somnambulistic con-

dition. Unzer says: "A somnambulist once fancied in winter, that, as he was walking by the side of a river, he saw a child fall in and drown. The bitter cold did not restrain him from saving it. He threw himself out of bed in the posture and with the movements of a person swimming, and when he had laboured diligently, he seized the bed-clothes with one hand, thinking it was the child, while with the other he attempted to swim to the imaginary shore. Then he laid his burden down, shivered with cold, his teeth chattering, as if he had come out of an ice-cold river. He said that he was stiff with cold, and asked for a glass of brandy. The dreamer had not really felt the ice-cold river, nor had repressed perspiration irritated the nerves of the muscles. The whole mental action of his foreseeing of both, manifested itself only by shivering and chattering of the teeth" (18:122-3).

This power of the mind to affect sensation oftentimes gives rise to various forms of delusion. George Combe, when a boy, went to an execution. Later in life, speaking of this circumstance, he remarks: "One incident impressed this scene very deeply in my memory. At that time boys wore round hats having a black cord outside wound round the bottom, with which to contract their diameter, and make them fit the head. The night of the execution was clear starlight. After dark, I issued from the house for some purpose, and, behold, between me and the sky hung the executed criminal, dangling in his black clothes. I looked twice, and there he was—there could be no mistake. I uttered a scream, and ran into the house, as if his ghost had been pursuing me. The kitchen door was open, and I flew to the light. There I saw about three inches of the black cord depending from the front of my hat having a knot tied in the end of it, and as this came exactly between my eyes and the sky-line, when I looked up, the appearance of the unfortunate deceased was instantly accounted for.

But I passed a restless and unhappy night, and it was many days before the scene faded from my mind, so as to permit tranquility to be enjoyed during the hours of darkness" (6:73).

The following incident of a similar nature is related by Dr. Tuke: "A lady was walking one day from Penryn to Falmouth, and her mind being at that time, or recently, occupied by the subject of drinking fountains, thought she saw in the road a newly erected fountain, and even distinguished an inscription upon it, namely—

'IF ANY MAN THIRST, LET HIM COME UNTO ME AND DRINK.' Some time afterwards, she mentioned the fact with pleasure to the daughters of a gentleman who was supposed to have erected it. They expressed their surprise at her statement, and assured her she must be quite mistaken. Perplexed with the contradiction between the testimony of her senses and of those who would have been aware of the fact had it been true, and feeling that she could not have been deceived (for 'seeing is believing'), she repaired to the spot, and found to her astonishment that no drinking fountain was in existence—only a few scattered stones, which had formed the foundation upon which the suggestion of an expectant imagination had built the superstructure. The subject having previously occupied her attention, these sufficed to form not only a definite erection, but one inscribed by an appropriate motto corresponding to the leading idea" (6:74).

The following remarks by Dr. Tuke, are so appropriate and to the point that we give them in full: "These instances form good illustrations of the slight influence of volition over sensation compared with that of a vivid mental image or idea acting upon the sensorial centres, and distorting or molding in other forms the impressions received from objects of sense. The fault does not lie in the afferent nerve, but in the central organs; not

in the telegraph wire, but in the somewhat muddled official sitting at the company's head office and endeavoring to decipher the messages. In truth, in our ordinary language, we give the senses a worse character than they deserve. They report correctly on various occasions, but we draw an incorrect inference or read their reports in a hasty or slovenly manner. It is only when the sensory apparatus is diseased in the first instance that we can properly speak of the senses deceiving us. The common reply to this apology for our senses is that in many instances, as in that of the oar which, although entire, looks broken in the water, our senses, even in a healthy condition, mislead us. A little consideration, however, will show that our senses are not really at fault even in this instance, and that if we arrive at a false conclusion, it is the result of our not making allowance for an intervening medium between the eye and the oar. Who would blame the eye because it could not see the oar at all, had there been a stone wall in the way? As unfair would it be to charge the eye with deception because its function is interfered with and distorted by an intervenient fluid. The child believes the oar broken because he has not yet learned the effect produced by the refracting power of water. Ignorance is the cause of an erroneous belief; the water the cause of the appearance of the oar; the organ of sight must be acquitted of all blame" (6:75-6).

2. Mind as a Cause of Pain

Not less striking are the effects of the mind upon the body experienced in connection with the sensation of pain. Here sympathy plays an important part as is evident from the following examples: "Lauzanus records the case of a young man who watched with great attention a priest being bled from the arm for an attack of pleurisy. Two hours afterwards he experienced

a severe pain in his own arm, at the spot corresponding to that of the puncture, and did not get rid of it for a couple of days. This is a fair instance of the primarily neuralgic class of cases, caused by a stimulus acting centrally upon the sensory nerves. In this and in the following case it is impossible to say how far emotional excitement assisted the result.

“Gratiolet relates that a law student who was present for the first time in his life at a surgical operation, which consisted in removing a small tumor from the ear, felt at the same instant so acute a pain in his own ear that he involuntarily put his hand to it and cried out. Gratiolet, who himself witnessed the circumstance, does not state whether the affected ear corresponded to that upon which the operation was performed, but this is implied. This case forms an excellent illustration of simple pain caused by what is popularly understood as ‘Sympathy,’ a fellow feeling, which might well bring it under the category of emotional influence” (6:66).

Says Dr. Symonds: “There is an interesting narrative in the fourth number of Brewster’s Journal, of a lady who was troubled with spectres, and who was the subject of constitutional nervous irritability to a great degree. Her nervous disposition was in fact so extremely sensitive, that she could not hear of a surgical operation having been performed on any individual, such as the amputation of an arm, without suffering acute pain in the same part of her own person” (25:254).

Effects, corresponding to these, may arise from the “association of ideas.” Take the following for example: “Dr. Kellogg records, in the *American Journal of Insanity*, the case of a friend of his who informed him that he had frequently sailed, when young, in a steamboat across an arm of the sea which was rough, and in consequence often suffered from seasickness. Upon this boat was an old blind fiddler who did his best to alleviate the sufferings of the passengers with his violin.

The result was that this instrument became associated in his mind with seasickness, and for years he could never hear it without experiencing sensations of nausea or a sort of *mal de mer*. . . .

"Gratiolet relates of himself that when a child his sight became affected, and he was obliged to wear spectacles. The pressure which their weight exerted upon the nose was so insupportable that he was obliged to discontinue their use. Writing twenty years after, he says that he never sees any one wearing spectacles without instantly experiencing, very disagreeably, the sensation which had so disturbed him as a boy" (6:67).

The power of an idea alone to produce the most acute pain is strikingly exemplified in a case related by Prof. Bennett of Edinburgh. "As illustrative of the strong influence of predominant ideas even in healthy persons, I mention," says he, "the following circumstances: Mr. Macfarlan, the druggist on the North Bridge, informed me, that on one occasion a butcher was brought into his shop, from the market place opposite, labouring under a terrible accident. The man, on trying to hook up a heavy piece of meat above his head, slipped, and the sharp hook penetrated his arm, so that he himself was suspended. On being examined, he was pale, almost pulseless, and expressed himself as suffering acute agony. The arm could not be moved without causing excessive pain, and in cutting off the sleeve he frequently cried out, yet when the arm was exposed it was found to be quite uninjured, the hook having only traversed the sleeve of his coat" (3:15).

Here we have phenomena corresponding to those produced under the influence of hypnotism. Alluding to the effects of the mind upon the body in the hypnotic state, Dr. Tuke observes: "The individual under the influence of Braidism (hypnotism), persuaded that he is in danger of being lost in the snow, shivers with imaginary, but to him no less real, cold. Adopting the

expression which the Tichborne trial has rendered so proverbial, we may say that Shakespeare would have been 'surprised to learn' that a man might be able to hold a fire in his hand and yet fancy himself cold by thinking on the frosty Caucasus, and, conversely, might be able, without feeling chilly, to

Wallow naked in December snow,
By thinking on fantastic summer's heat;

for a central sensation of ideal or subjective origin, can supplant the sensation derived from peripheral impression, since the antithesis suggested (being more powerful in proportion to the original stimulus) would occupy that portion of the cortex habitually connected with simple sensation and thus a kind of local hypnotism result.

"Professor Gregory reports one of those frequent cases in which, by suggestion, 'the subject' experiences a variety of sensations. 'One arm was deprived of sensation, or both arms, or the whole frame. He was made to feel a knife burning-hot, and the chair on which he sat equally so. When he started up he was made to feel the floor so hot that he was compelled to hop about, and wished to pull off his boots which burnt him. He was made to feel the room intolerably warm, and actually perspired with the heat; after which he was made to feel it so cold, that in a minute or two he buttoned his coat, and walked about rubbing his hands. In about five minutes his hand was really chilled, as I found, like that of a person exposed to frost'" (6:64).

Says Dr. Dubois: "The power of an idea is such that, not only does it distort a pre-existing sensation or an idea, but it can create the sensation in its entirety" (31:113). Evidently there is no sensation that can be produced in any way whatsoever by forces brought to bear upon the body from without that cannot be produced by the mind or mental states alone operating from

within. Dr. Laycock asserts: "By an act of the will we can also excite new sensations. Let an individual concentrate his attention upon the interior of his head for a few minutes, and he will experience various sensations in the skin analogous to formication. Any one may produce at will a sensation in his finger-ends, by directing his attention to it. Dr. Elliotson mentions instances of this kind, and they and analogous cases are easily explicable by the proposition previously laid down, namely, that the peripheral and central ends of a sensitive nerve are identically the same" (19:110).

Says Wilkinson: "The nerves or brain form a representative system which does not itself come in contact with objects on the one hand, or with actions on the other, but deals in the one case with the images of things, in the other with the commands of actions. It results from this that whatever will produce the central impression, sensation, imagination, or intellectual vision, will cause the appearance of the object, whether it be present or not. Thus if the brain can radiate down the spinal cord a vibration like that which the cord receives from any object or an impression from without, the same motions will be engendered as flow from the opposition of a real circumstance or object. So again, if the brain can shake the optical centres as light shakes them, or can extemporize the part of light within them, the man will have the sensation of light as though it were present from the sun or candle. And so, too, if the soul or spirit, or any other spirit or influence, can make the imaginations or the thought-movements in the cerebral substance, these will seem as much our own thoughts as though no such influence had been exerted. But in both cases, be it remembered, there is an object out of the faculty excited; though in the one case the object is out of the organism externally, in the other case out of it internally. Each of the centres then, namely, the automatic, the animal, and the rational, are suscep-

tible of a two-fold excitement: first, from a circumambient world, or from beneath, through their own proper circle; secondly, from the organism, or organisms, above them, and thus indirectly from a higher circumambient sphere'' (9:16-7).

CHAPTER II

THE RELATION OF THE MIND TO DISORDERS OF THE MUSCLES

In speaking of the effect of mental states upon the muscular system, Dr. Tuke observes: "The Sympathy of the whole frame with the prominent ideas of the mind, by which one muscle or organ, when aroused to action by mental states, excites other muscles or organs, should not be overlooked. The term so applied has the authority of John Hunter, who lays down the law that 'every part of the body sympathizes with the mind, for whatever affects the mind, the body is affected in proportion.' This homogeneity between the actions of the muscles is exhibited whenever one muscle is excited by mental activity. When ideal, it follows the course which would have been pursued in reality. As in presence of an actual scene, so in Imagination, when a person vividly imagines another in danger—say from the fall of a heavy weight—how the entire attitude assumes the form of averting the impending danger! Reason tells him it is altogether useless to move a single muscle, yet not only does the law of Sympathy impel him to gesticulate, but forces the whole system into harmonious action—the eye, the facial muscles, the arms and the legs, are thrown into violent action. When the scene is purely the work of Imagination, the effect is ordinarily feeble in character; but when a real scene is witnessed at too great a distance to render assistance, while the horror depicted in the countenance is merely the facial expression of the Emotion, the motions of the arms, trunk, and legs are the automatic representations of the forms they would actually assume if rendering help on the spot.

Thus, from the wonderful fellow-feeling established by nature between mind and mind, body and body, or between the various parts of the mental and bodily constitution of an individual, the Imagination, 'sending electric thrills through every nerve of the body,' stirs, through the operation of Sympathy, the whole being to its depths; the nearest stations being in communication with the most distant outposts, and the frame changing now with its own and now with another's condition, as reflected in its own chambers of imagery" (6:98).

Again, in describing the influence of emotion upon the muscles as a means of expression, he remarks: "As Expression depends on the contraction and relaxation of the muscles, the relation between Emotion and muscle becomes of great interest and importance in a physiological point of view, including in this all the fleeting expressions, gestures, and attitudes to which the passions of the soul subject the body. The predominance of one emotion, or of emotions of one class, may cause, however, more than evanescent expressions—may determine the settled character of the features, and is the basis of physiognomy as distinguished from mere pathognomy—emotions of noble and lofty character tending to produce a refined, and those of a sensual character, a debased type of expression, which may become not only permanent in the individual, but hereditary.

"As Scott describes Bertram's features in *Rokeby*—

For evil passions cherished long
Had plowed them with impressions strong.

"On the contrary, as Ruskin says, 'there is not any virtue, the exercise of which, even momentarily, will not impress a new fairness upon the features, neither on them only, but the whole body'" (6:176-7).

Having described the effects of various emotions upon the muscles, he further observes: "From these examples, it is sufficiently clear that certain feelings of

the mind act upon certain muscles of the body in preference to others. . . . The fixed relationship between certain muscles and certain mental states is also proved, conversely, by the effects produced in evoking the latter, by placing the former in particular attitudes. This can be done to some extent in an ordinary condition of the system, but can only be thoroughly effected in artificial somnambulism or Braidism.

“To determine the exact relation between particular emotions and particular muscles, there are three methods available. The first is to observe the contraction of the muscles under the influence of well-recognized emotions, whether in the sane or insane; the second, to call up distinct feelings when the peculiar condition of the nervous system, known as artificial somnambulism, has been induced, and then to note the action of the muscles; the third, to galvanize the muscles separately and observe the mental expression produced (6:189). . . .

“Contraction, it has been said, is the natural language of the painful emotions, relaxation of the pleasurable ones, and it is true that in the early stage of Grief we witness violent contractions of some of the muscles. In Anger, again, the muscles are vigorously contracted; but there are many exceptions to the rule as thus laid down. It would be more correct to say that the pleasurable or joyous emotions impart *expansion* to the *expression*; the painful or sorrowful ones, *concentration* (6:194). . . .

“Pleasurable and painful sensations from without determine, then, the form which the muscles called into action assume; the purpose being to protect the organs. Similar muscular changes arise from the emotions, according as they are pleasurable or painful, in consequence of the harmony between mental and bodily acts. The mind, figuratively speaking, sees, hears, smells, tastes, touches and respires, and with each of these mental operations the feeling of pleasure or pain may

be associated and affect the muscles accordingly. The emotions may eagerly receive or forcibly reject the stimuli which excite them (6:203). . . .

“As we have already observed, some movements are of a sympathetic character. In the use of the bodily organs, in addition to the action of the muscles directly required, other movements arise which are in unison with them. The whole body—the attitude and gestures—will thus sometimes display sympathy with the exercise of only one sense. ‘Whether one member suffer, all the members suffer with it; or one member be honored, all the members rejoice with it.’ This apparent excess of action is readily explicable as being correlated to the central disturbance, since the flow of nerve energy is directly proportionate to the causative emotion. It must not, however, be forgotten that this sympathy may be shown by passive as by active forms, by respectful and considerate relaxation as by jubilant contraction” (6:208-9).

Thus far we have confined our discussion to the effect of the mind and its various emotions upon the muscles as manifested in a state of health. Now, however, we are to speak on the relation of the mind to the muscles of the body in a state of disease, including all those disorders affecting the voluntary muscles upon the one hand and the involuntary upon the other.

I. THE VOLUNTARY MUSCLES

This topic naturally subdivides under two heads, loss of muscular activity or paralysis, and excessive or irregular muscular activity, in other words, spasms and convulsions.

1. *Paralysis*

It is not at all necessary in our treatment of this topic to cite examples of all or even of any considerable num-

ber of the different kinds of paralysis and of the various emotions which give rise to them. As to whether the paralysis shall be partial or total, or in one part of the body or another will depend upon conditions within the physical organism as well as upon the nature and intensity of the mental states. The principle is this: Inharmonious emotions like anxiety, anger, grief or fear, when very intense, will not unfrequently result in partial or total paralysis of one or more members of the body.

Dr. Todd in his *Clinical Lectures on Paralysis* relates a case which illustrates how easily a mental state may cause a disorder of this kind. Says he: "The patient was a man between 50 and 60 years of age, of irritable temper and hypochondriacal habit. A question, respecting some very trifling matter, happening to arise one evening in his family party, some one present held out too strongly against his views, and this led to a vehement contradiction on his part, which was met by a counter-statement and a rejoinder, and thus he became excited to such a degree that his power of speech completely abandoned him. . . . He continued in this speechless state for about a week, when he recovered, and when once he began, the power of speech returned fully in a very short time. Two years after this occurrence the same gentleman got into a similar argument and difference of opinion upon a matter equally trivial, and again became strongly excited; but this time, instead of becoming speechless, he became hemiplegic on the left side, without mental affection, but with decided palsy of the left side of the face. The paralysis was not complete, for he could move the fingers and leg very slightly. After a little time, without any other treatment than that of removing, so far as possible, all exciting causes, he recovered to a great extent the power over the arm and leg; but although the principal recovery took place

about six weeks after the attack, he is now, four months after the occurrence of the hemiplegia, by no means quite well" (6:252-3).

We will now turn to another phase of this malady, where the loss of control over the member arises in a somewhat different manner. The following very interesting case is related by Dr. Sky: "Many years ago when I was less familiar with hysteric affections I attended the case of a young lady of nineteen (suffering from a painful affection of the knee) in conjunction with Mr. Stanley. We both deemed the disease to belong to the class of inflammation, and conjointly adopted the usual remedies so indiscriminately resorted to in all painful affections of the joints. Many weeks elapsed without improvement, and I remember that we discussed with some anxiety the probable issue in abscess, destruction of ligaments, absorption of cartilage, and ultimate amputation of the limb! One day my patient informed me that her sister was going to be married, and that, cost what it might, she had made up her mind to attend the wedding. At this proposal I shuddered. Having expatiated to no purpose on the probable consequences of so rash an act, with all the force of language I could command, I determined to give stability to the joint for the occasion, and I strapped it up firmly with adhesive plaster. On the following day I visited her. She told me she had stood throughout the whole ceremony, had joined the party at the breakfast, and had returned home without pain or discomfort in the joint" (6:385-6).

Says Dr. Tuke: "Hysterical affections of the joints are good examples of morbid conditions arising from the imagination, but are usually more or less emotional states. Sir B. Brodie observes, 'the symptoms may frequently be traced to the circumstance of the patient's attention having been anxiously directed to a particular joint'" (6:106-7). Moreover, Sir B. Brodie is said to have asserted "that at least four-fifths of the female

patients among the higher classes of society, supposed to labor under diseased joints, only labor under hysteria" (6:107).

There is still another way in which troubles of this kind may arise. Dr. Crichton in his work on the *Nature and Origin of Mental Derangement* relates the following very peculiar case: "In Kleische, a small village in Germany, belonging to Mr. V. S——, a maid servant of that gentleman's family was sent a short league from home to buy some meat. She executed her orders correctly, and as she was returning in the evening, she thought she suddenly heard a great noise behind her, like the noise of many wagons. Upon turning round she observed a little gray man, not bigger than a child, who commanded her to go along with him. She did not, however, return any answer, but continued to walk on. The little figure accompanied her, and frequently urged her to go along with him. Upon reaching the outer court of her master's residence she was met by the coachman, who asked her where she had been, to which she returned a very distinct answer. He did not remark the little man, but she still continued to do so. As she was passing the bridge he summoned her for the last time, and upon her refusing to answer him, he told her, with a menacing look, that she should be four days *blind and dumb*, and having said so he disappeared. The girl hastened to her apartment and threw herself on the bed, *unable to open her eyes, or to pronounce a word*. She appeared to understand all that was said, but could not make any answer to the questions which were proposed to her, except by signs. Everything was tried for her recovery by the family with whom she lived, but all was in vain. She was incapable of swallowing the medicines which were ordered for her. At last, *on the expiration of the fourth day*, she arose in tolerably good health, and narrated what had happened to her" (6:105-6).

Effects, similar to those just mentioned, can be produced very easily under the influence of hypnotism. If a person, having closed his eyes at the command of a hypnotist, be told by him that he cannot open them, he will be unable to do it. If, however, a moment later he be told by him that he can, he will experience no difficulty whatever in doing so. In like manner, if he be told by him that he cannot speak or raise his arm, he will be unable to perform these acts until told by his hypnotizer that he can. Thus, by a positive assertion on the part of the hypnotist, he can, in an instant, be deprived of the use of any member of his body and have it restored as readily.

Dr. Tuke observes: "The simple belief or conviction that a muscle can not be contracted or relaxed is sufficient in a sensitive person, or in one in whom this sensitiveness is induced, to cause temporary loss of power. It is referred to the Imagination; in other words, the effort to carry out the desire or will is paralyzed by the absorbing conviction that it will be ineffectual" (6:105).

2. Spasms and Convulsions

Says Dr. Tuke: "Few are the illustrations which will be given of the influence of the Intellect in causing spasms and convulsions. When we treat of the Emotions, our cases will be abundant, and the difficulty will then be in selection rather than collection. A cold and abstract idea, before it generates any Emotion, is not calculated to cause excessive muscular contractions. . . .

"It is, however, when a powerful expectation is excited that we are most likely to witness spasm or convulsion. To obtain cases in which Expectation of the phenomenon only exists, without the emotion of Fear is, however, a difficult task" (6:100).

Dr. Althaus in the *Medical Times and Gazette* of April 24, 1869, relates an incident which will illustrate

cases of this kind: A little girl five years old was playing at ghost in a cellar with some other children, when, taking the supposed ghost to be a real ghost, she became exceedingly frightened and fell down in a fit of epileptic convulsions. "Some years afterwards she had another fright, by a woman coming up to her while she was playing in the street, and swearing at her. Since this she has never been quite free from fits. The convulsive seizures are well marked, commencing with a scream; the head is turned to one side, there is foam at the mouth, the tongue is bitten, the urine often passes involuntarily. The convulsion lasts four or five minutes, during which there is complete loss of consciousness. After the fit the patient sleeps for half an hour, and then wakes with a bad headache, and speaks slowly and thickly for some time. There is no aura with these fits, which occur at intervals of two or three weeks. Sometimes she has a succession of five or six in the same day; at others only one or two at a time. The attacks of petit mal are much more frequent, as she has sometimes thirty or forty such seizures in one day, and rarely goes three or four days without any" (6:211-12). Moreover, grief, anger and kindred mental states might produce a corresponding effect or give rise to chorea, catalepsy and other forms of convulsive affections.

Furthermore, disorders like these may arise from imaginary causes, as is evident from the following cases related by Dr. Sweetser: "A man traveling alone by night, encountered a large dog in a narrow path, and fancying himself seized by the animal, he reached home in extreme terror, and on the following morning was attacked with a violent fit of epilepsy, of which he afterwards had many returns (5:193). . . .

"The terrors with which some persons are so often, or almost habitually agitated during their nightly slumbers, can hardly be otherwise than detrimental to the health of the body. A frightful dream will sometimes

impair the appetite, and leave the individual pale, melancholy, and with his nervous system in a state of morbid commotion through the whole of the subsequent day. . . . Even convulsions and epilepsy have been the unhappy consequence of such imaginary terrors. Tissot relates an instance of a robust man who, on dreaming that he was pursued by a bull, awoke in a state of great agitation and delirium, and, in not many minutes after, fell down in a severe fit of epilepsy" (5:215-6).

Likewise a vivid idea or impression may also lead to a repetition of the attacks. For instance, it is said that a boy eleven years old was thrown into epileptic convulsions by the great grief occasioned by the loss of his mother. Inasmuch as he continued to grow worse, in course of time he was taken to a hospital. While there he remarked to the physicians, "I am seized through my thoughts." Upon investigation it was found that he had reference to what Jules Falret meant when he said that "many persons who have become epileptics after strong moral emotions, or intense terror, see again in spirit or before their eyes, on each succeeding seizure, the painful circumstances or the dreadful scene which first produced their complaint" (6:213).

Regarding phenomena of this kind Dr. Tuke observes: "The simple thought or remembrance of previous attacks suffices with some epileptics to cause a recurrence of the fit; and still more potent is the recollection of the cause, if the cause has been of an alarming character. Ideal Emotion simply takes the place of the original feeling. In Van Swieten's works is recorded a case of epilepsy which may be referred to this principle, that of a boy who, having been frightened into epileptic fits by a great dog, had a recurrence of the attacks whenever he heard a dog bark" (6:101).

Moreover, disorders of this sort are multiplied in society by the operation of the law of "imitation." Viewed from a psychical standpoint, these cases do not

differ essentially from the preceding, only the impression is produced from without instead of from within. The following incident, related by Prof. Dubois, may serve as an illustration of this principle: "At Berne thirty little girls were taken with articular pains and rhythmic movements of the arms. It was necessary to separate the patients in order to stop the attacks, which were purely imitative. . . .

"These young girls found themselves in certain conditions of companionship and intimacy which created a psychological condition favorable to contagion, and they succumbed to it by reason of a weakness of judgment which is very natural at that age. Suggestibility has no limits in the normal child because of the insufficient development of the reason" (31:175).

That disorders arising from the operation of this law are not confined to children alone is very evident, as shown by the following incident which occurred at Lyons in France: "In a workshop where sixty women were at work, one of them, after a violent altercation with her husband, had a nervous attack. Her companions pressed round her to assist, but no sooner had they done so than first one and then another fell a prey to the same kind of attack, until twenty were prostrated by it. The contagion appeared likely to spread through the company, but was checked by clearing the room" (6:101).

Doubtless to most people, in consequence of their ignorance of the laws which govern the relation between mind and body, it would look as though those persons, who, having gathered around this woman, went into convulsions, were weak minded. Yet this does not necessarily follow. Once a very intelligent lady—an able writer and effective speaker well known both in this country and abroad—told me that at one time she was seated before a large audience when a person near the front went into convulsions. It chanced that her atten-

tion became completely absorbed in this person. As a result she found herself going into the same state, but turned her gaze in another direction just in time to save herself. It is a well known fact that if a given picture or mental conception gets entire possession of the mind or consciousness then there will follow a corresponding activity within the physical organism. Furthermore, no matter how the impression has been produced, whether from without or from within, the result will be exactly the same. Therefore occurrences of this kind result, in no small measure, from susceptibility to impression on the one hand and power of concentration on the other, neither of which are to be associated necessarily with weakness of mind or character.

On this principle Müller remarks: "The idea of a particular motion also determines a current of nervous action towards the necessary muscles, and gives rise to the motion independently of the will. In this way the movements of yawning, laughing, etc., are produced involuntarily, when another person is seen to yawn or laugh" (2: vol. II, 1398).

Likewise Dr. Tuke, speaking of the workings of this law, observes: "If John gapes when he sees Thomas gape, it is because the idea is forcibly presented to his mind, and thus produces analogous acts. The idea is in this case excited through the sense of sight or of hearing; but it may be suggested in other ways, as when John simply thinks of the act and the same effect is produced, as has happened to myself from writing this sentence. Here we meet the additional principle, that whatever mental or bodily state can be excited through the senses from without, may arise from within, from Imagination proper. . . . Imitation is closely allied with phenomena popularly referred to the Imagination; with those astonishing psychological dramas which have at various epochs arrested the attention of the world. To this remarkable principle of our nature which leads

us to act involuntarily like others, the convulsions and faintings, which, in sensitive persons, follow the witnessing of these conditions, are due" (6:53).

Owing to the operation of this principle, numerous cases of rabies, ascribed to the imagination alone, are to be found in medical works. Dr. Ferriar, referring to this malady, asserts: "Dr. Percival has justly remarked in his letter to Dr. Haygarth that the difficulty of swallowing is sometimes produced by the power of Imagination alone. I met with an instance of this kind lately in which it was very difficult to prevent a person from rendering himself completely hydrophobic. Himself and his wife had been bitten by a dog which they supposed to be mad. The woman thought herself well, but the man, a meagre, hypochondriacal subject, fancied that he had uneasiness in his throat, *and that he could hardly swallow anything*. When he first applied to me a medical friend who was present asked him whether he had any sensation of heat at the pit of the stomach. He answered in the negative doubtfully; but next day I found him in bed, complaining of heat at the pit of the stomach, difficulty of swallowing, tremors, and confusion in the head. He continued to persuade himself that he was ill of rabies, and confined himself to bed, expecting death for nearly a fortnight. At last I remarked to him that persons who were attacked by rabies never survived more than six days; this drew him out of bed, and he began to walk about. By a little indulgence of his fears this might have been converted into *a very clear case of hydrophobia*, and the patient would probably have died" (6:102-3).

Likewise Dr. Tuke, alluding to cases of this kind, remarks: "Romberg cites from Chomel the case of a physician at Lyons, 'who assisted in the dissection of several hydrophobic patients, and was seized with the conviction that he had been inoculated with the virus,

He lost his appetite and was sleepless; when he attempted to drink he was seized with choking and spasm of the pharynx; for three days he wandered about the streets in a state of despair till at last his friends succeeded in convincing him that his malady had its foundation in his mind.' Trousseau says he has known physicians—men of strong minds and courage—who, although well aware of the conditions needed for the development of rabies, were subject for several months and even years after attending and dissecting persons suffering from hydrophobia, to more or less distressing attacks of dysphagia, on the mere recollection of the awful scenes which they had witnessed. 'Time alone got rid of their nervous susceptibility, which manifested itself in the shape of spasm of the pharynx, and they cured themselves of it by appealing to their knowledge of the disease and by forcing themselves to drink some liquid whenever they felt this sensation coming on.' It may here be observed that, according to this physician, there is in nervous hydrophobia dysphagia only, and no general convulsions, the spasm affecting the pharynx alone, while the respiration is unaffected (6:234-5). . . .

"So evident is the influence of the Imagination in the development of hydrophobia, that some distinguished medical professors have, as is well known, gone so far as to maintain that it is always due to this cause. The strange tendency which exists among many reasoners, when investigating the causes of morbid phenomena, to range themselves under one of two exclusive extremes—the first attributing *nothing*, and the last *everything*, to the Imagination—is strikingly exhibited here" (6:239).

That a person could die from imaginary hydrophobia is evident from the following incident related by Dr. Moore: "A gentleman who had constantly witnessed the sufferings of a friend afflicted with stricture of the

æso-phagus, had so great an impression made on his nervous system that after some time he experienced a similar difficulty of swallowing, and ultimately died of the spasmodic impediment produced by merely thinking of another's pain" (34:241).

The principle operative in the examples just mentioned has a most important bearing upon the training of children and also upon certain cases of suicide and homicide. As regards the former, Dr. Sweetser remarks: "Parents, to escape the noise and trouble of their children, are too prompt to submit them to the care of servants, so that many really receive a much larger share of their primary education in the kitchen than in the parlor. That such should be the case is certainly to be regretted, it belonging to our imitative nature readily to acquire the habits, manners, and modes of thinking and speaking of those with whom we habitually associate. And more especially is this true in early life, when the mind and body are unfolding themselves, and the brain, soft and delicate, receives with the greatest facility every impression. Boerhaave relates that a schoolmaster near Leyden being squint-eyed, it was found that the children placed under his care soon exhibited a like obliquity of vision. It has been well observed, that there is a necessity for us either to imitate others or to hate them" (5:228).

Commenting on the relation of this principle to suicide Dr. Tuke observes: "From what but the unreasoning operation of this law, excited by an association of ideas, could it happen that, when a sentinel of Napoleon's army committed suicide by hanging himself in his sentry-box, several immediately followed his example when they became his successors in the same box? What a practical commentary on this imitative principle of the mental constitution that, to prevent further mischief, Napoleon found it necessary entirely to destroy the box by fire. Such facts demonstrate in strong

colors the duty of not neglecting the idiosyncrasies of men and women as regards the association of external forms and internal images. Often what we call idiosyncrasies are the workings of a universal principle acting exceptionally in consequence of the absence of certain modifying influences—a principle underlying a thousand acts, unsuspected or unrecognized until exposed by the removal of its ordinary safeguards” (6:102).

Likewise the following remarks by Dr. Sweetser on both suicide and homicide are especially suggestive in this connection: “Even the reading of cases of suicide may sometimes call into action this principle of imitation, and lead, it may be, to fatal consequences. An instance in illustration occurred a number of years since in Philadelphia, an account of which was published at the time by Isaac Parrish, M. D., of that city. This subject was a girl in her fifteenth year, who had been carefully brought up, and whose situation in life was apparently every way agreeable. It seems that early in the morning of the day of her death, ‘she had held a conversation with a little girl residing in the next house, in which she mentioned having lately read in the newspaper of a man who had been unfortunate in his business, and had taken arsenic to destroy himself. She also spoke of the apothecary’s shop near by, and said she frequently went there.’

“It appeared that two days prior to her death she had purchased half an ounce of arsenic of a druggist in the neighborhood, for the pretended purpose of killing rats, which she had used as the instrument of her own destruction.

“It is a fact well known in respect to certain individuals, especially when of a nervous or sensitive temperament, that if the thoughts of any particular deed, calculated, from its criminal or hazardous character to make a deep impression on the feelings, chance to be strongly awakened in the mind, they cannot be banished,

but becoming more and more concentrated, a propensity, sometimes too powerful for resistance, to the commission of such deed, will actually follow. Were such an one now to become deeply affected—either from his connection with its subject, or its peculiar circumstances—by the occurrence of a suicide, the idea might continue pertinaciously to haunt his imagination, and an unconquerable inclination to the like unnatural deed be the consequence. And that murders are sometimes committed under the same mysterious and urgent impulse is a fact too well established for denial. I remember an instance in point, which, many years since, came within my immediate knowledge. A young female, while sitting with an infant in her arms near a fire, over which hung a large kettle of boiling water, suddenly started up and in a hurried and agitated manner ran to a distant part of the room. On asking her the reason of this she, after a little hesitation, told me that fixing her eyes on the boiling water, it occurred to her how dreadful it would be should she by accident let the child fall into it. ‘On this idea crossing my mind,’ said she, ‘I instantly began to feel a propensity to throw it in, which soon grew so strong that had I not forced myself away I must inevitably have yielded to it.’ (5:293-4.)

“The inclination to homicide exhibits the same remarkable tendency to spread from the force of imitation, as we have previously shown exists in that to suicide. In proof of this examples enough will be found on record. We read that the trial of Henrietta Cornier, in France, for infanticide—it becoming, from its peculiar and deeply exciting circumstances, a subject of very general attention and conversation—occasioned in many respectable families a strong propensity to the same unnatural deed” (5:297-8).

Dr. Tuke aptly remarks that “the pernicious influence of this principle in connection with witnessing or read-

ing the reports of atrocious crimes, as in the *Police News*, will occur to the reader, and need not be detailed here" (6:101).

II. THE INVOLUNTARY MUSCLES

Referring to the intellect and the emotions, Dr. Tuke says that they "act upon the Heart and non-striated muscles with a power similar to that which they exercise over the voluntary or striated muscles; causing contraction, spasm, and paralysis" (6:109, 262).

As regards the effect of the emotions upon the stomach he observes: "Digestion is affected by the contractions of the muscular coat of the stomach as well as by the amount and character of the gastric juice, and therefore the disturbance of this process which so often results from emotional changes is due, in part, to abnormal contraction of these muscular fibres" (6:300-1).

Likewise, in speaking of the effect of emotion upon the intestines, he remarks: "Of the influence of Emotion in increasing the peristaltic action of the intestines, the ordinary effect of Fear and Fright affords the readiest illustration. The simple result of this muscular contraction—the discharge of the contents of the bowels—is rarely unmixed with increased secretion from the intestinal glands, and therefore we shall have to return to the consideration of these effects when we speak of secretion and excretion. It must be noted here, however, that the involuntary muscular fibres of the glanducts which discharge themselves into the alimentary canal are acted upon and contribute to the resulting diarrhœa" (6:301).

That inharmonious mental states do seriously interfere with the muscular activities of the stomach and intestines is very evident from the results of experiments carried on by Dr. W. B. Cannon of the Harvard Medical School, from which we make the following brief extracts: "Early in the research a marked unlikeness

was noticed in the action of the stomachs of male and female cats. The peristalsis seen with only a few exceptions in female cats failed to appear in most of the males, although both had received exactly the same treatment. Along with this difference was a very striking difference in behaviour when bound to the holder; the females would lie quiet, mewing occasionally, but purring as soon as they were gently stroked. The males, on the contrary, would fly into a violent rage, struggle to be loose from their fastenings, bite at everything near their heads, cry loudly and resist all attempts to quiet them. On account of this difference only female cats were used for some time, and the significance at first attributed to the action of the males was almost forgotten when the following incident recalled it and suggested that the excitement caused the suspension of the stomach movements. On October 23, 1897, a male cat was fed at 12:00, but was not placed on the holder till ninety minutes later. The waves were passing at the rate of six a minute. The cat fell into a rage and the waves suddenly stopped (35:337-8). . . .

"It has long been common knowledge that violent emotions interfere with the digestive process, but that the gastric motor activities should manifest such extreme sensitiveness to nervous conditions is surprising (35:339-40). . . .

"The stomach consists of two physiologically distinct parts: the pyloric part and the fundus. Over the pyloric part, while food is present, constriction waves are seen continually coursing towards the pylorus; the fundus is an active reservoir for the food and squeezes out its contents gradually into the pyloric part (35:340). . . .

"The food in the fundus is not moved by peristalsis, and consequently is not mixed with the gastric juice; salivary digestion can therefore be carried on in this region for a considerable period without being stopped by the acid gastric juice. . . . The stomach movements

are inhibited whenever the cat shows signs of anxiety, rage, or distress (35:340-1). . . .

“There is no doubt that many emotional states are a strong stimulous to peristalsis, but it is equally true that other emotional states inhibit peristalsis. In the cat the same conditions which stop the movements of the stomach stop also the movements of the intestines (35:383-4). . . .

“Signs of emotion, such as fear, distress, or rage, are accompanied by a total cessation of the movements of both large and small intestines” (35:388).

Says Dr. Dubois: “Professor Kronecker of Berne, summed up before an audience of physicians one day his experiments on the peristaltic movements of the dog . . . by these words: ‘Now, gentlemen, the thing that acts chiefly on the intestine of the dog is his emotions, whether joyful or sad.’ . . .

“If mental representations are enough to provoke secretions, and accelerate the peristaltic movements in a dog, must not this intervention of the idea be still more powerful in man, in whom the psychic life is so much more rich and complicated?” (31:289.)

The uterus, too, as one would naturally expect, is potently affected by disturbed states of consciousness. “Under this head,” says Dr. Tuke, “we shall only refer to the fact familiar to every general practitioner—the influence of violent emotion in causing miscarriage, and of arresting uterine contraction in labor. Hence, if an accoucher leave his patient and another take his place, the progress of labor is generally impeded; uterine contraction ceasing for hours. Yet medical men often strangely forget the importance of avoiding unpleasant mental impressions under such circumstances” (6:304).

The effect of mental activity upon the action of the lungs is strikingly portrayed in the following description by Wilkinson: “The breath awaits while the steady-fingering thought explores, and then inspires, not

whatever comes, but precise information. Let the reader observe himself when he is feeling for such information, and he will find his curiosity rejoicing in periods of suspended lungs. . . . It is also to be noticed that the voice, which consists of perceptions freed from the mind and launched into the air, is made of the material of the expirations. The mind is breathed out into the social world by the expirations and their pauses, and not by the inspirations. . . . Thought is still, and contemplation breathless; each involving, first, fixed breath, and, second, a small expiring; and so on until the thought is traversed, or the effort ends and begins anew. . . . To the senses, suspended animation is suspended consciousness; to the intellect, suspended animation may be life, thought and supreme wakefulness. . . . Intellect touches so near upon trance that the highest cases of either involve common phenomena, and exist in the same persons" (9:113-4).

Commenting on the effect of emotion on the brain Dr. Tuke remarks: "The stimulating influence of emotion on the cerebral vessels, short of rupture, is witnessed in cases in which the surface of the brain is exposed by accident. One is recorded in the *Medico-Chirurgical Review* (No. 46, p. 366). A robust young man lost a considerable portion of his skull. 'When excited by Pain, Fear, or Anger, his brain protruded greatly, so as sometimes to disturb the dressings, which were necessarily applied loosely; and it throbbed tumultuously, in accordance with the arterial pulsations.' In such a state it is easy to understand an apoplectic sequence. Vaso-motor spasm may also cause rupture of the vessels" (6:292).

Likewise intense or disturbing emotions, and even centering the attention upon the heart, have a deleterious effect. Says Dr. Tuke: "The direction of thought to the Heart has, very generally, an embarrassing influence upon its regular action. It is true, emotional states

exercise a much greater and more instant influence; but simple attention to its beats is usually attended by slight, and occasionally by painful, cardiac disturbance. This action of an intellectual, as distinct from an emotional, state is referred to by Sir H. Holland: 'There is cause to believe the action of the heart is often quickened, or otherwise disturbed, by the mere centering the consciousness upon it, without any emotion or anxiety. On occasions where its beats are audible, observation will give proof of this, or the physician can very often infer it while feeling the pulse; and where there is liability to irregular pulsation, such action is seemingly brought on, or increased, by the effort of Attention, even though no obvious Emotion be present.'

"From the same cause, medical students when their thoughts are directed by their studies to this organ, are frequently sufferers from its disturbed action. Anxiety no doubt comes in here to aggravate the disorder, and will be referred to again under Emotion. Peter Frank himself, even when in advanced life, is stated by Romberg to have been attacked while devoting special attention to the subject of heart disease during the preparation of his lectures, with such severe palpitation accompanied by an intermittent pulse, that he felt assured he was affected with an aneurism; the symptoms only ceased after the completion of his labors, and after he had enjoyed the relaxation and diversion of a journey (6:109). . . .

"The late Dr. Peacock, whose large experience in diseases of the heart, made his opinion of great value, informed me that he had frequently observed palpitation and subsequently dilatation of the heart in women follow upon mental distress and other emotional influences. He never met with a case of rupture of the heart from emotion.

"Tissot asserts that dilatation of the heart and the aorta has been caused by Anger and Chagrin, and he

refers for proof of the former to Bonnet, Morgagni, and others; and of the latter to Harvey, Zimmermann, etc. Bichat cites Desault's statement that diseases of the heart and aortic aneurisms are multiplied in revolutions, in proportion to the evils which they produce.

"Speaking of intermittent pulse, Dr. Richardson observes, 'I have never met with a case in which the disorder was not sequential to some anxiety, shock, fear, sorrow, or their similars. I have met with case upon case in which the sufferer has been able, from his own perception of the intermittency, to register the precise moment when the injury causing it was inflicted.'

"It is not surprising that at the present day, when the worry of life and strain on the feelings, in all ways, are so vastly intensified, that there should be strong evidence to show the increase of cardiac affections. . . .

"The disturbance of the heart's action indicated by syncope is a common phenomenon as the sequence of emotional excitement, and it is easy to understand how in cases where the heart is healthy, nothing more serious may occur, but where it is diseased and has already quite enough work to perform it succumbs to any strong or tumultuous passion. We find here, as in other instances, that similar results are produced by very opposite forms of emotion—Joy and Fear—both, however, agreeing in this, that they are sudden and intense" (6:271-2).

To illustrate the pernicious effects of certain emotions upon the organs already mentioned, we cite the following examples:

1. Stomach and Intestines

A clergyman informs me that once, on receipt of distressing news, he labored under spasmodic action of the stomach for three days, causing violent vomiting for two or three hours at a time. He was unable to take food and there was no action of the bowels (6:301).

The often quoted experience of Van Swieten illustrates the influence of an idea, apart from Imagination or Expectation, in exciting an act which had originally been excited by an impression from without. He relates that he once passed a dead dog in a state of putrescence, and the stench caused him to vomit. Having occasion to pass the same place, several years afterwards, the circumstance was so vividly recalled, that he could not help vomiting. Clearer proof could not be found of the action of a mental image, or a subjective impression (a foreseeing, Unzer would say) upon the muscular system (6:127).

A lecturer was put to great inconvenience on one occasion by the threatened action of the bowels during the lecture. His Will triumphed; but ever afterwards he was troubled in the same way when he went to the same lecture-room, whatever precaution he might take, but not when he lectured elsewhere (6:431).

2. Uterus

In a case recorded by Professor Laycock, Attention and emotional excitement combined, brought on uterine pains in a female, aet. 48, who attended her daughter during a very tedious labor.

Dr. Gooch records the case of a lady whom he attended, who with great difficulty was persuaded to marry, in consequence of an imagination that she would certainly die should she become pregnant. Such was the influence of this apprehension upon the course of the labor, that, in spite of all the encouragement Dr. Gooch gave her, it interfered with its progress in so marked a manner as to protract it to a period of thirty-six hours. . . .

Dr. Gooch's practical conclusion is: "In this state of mind we must keep up the spirits of our patient, both during pregnancy and at the time of labor, by

anecdotes of the most favorable accouchements of those who have entertained equal apprehensions, and by every species of encouragement in our power" (6:304).

3. Lungs

Descuret records the case of a woman, aged 64, subject to violent fits of passion, in one of which "her little eyes sparkled, her face was injected, her large jugulars were distended, and a violent fit of coughing brought up, in my presence, bloody expectoration of a bright color" (6:294).

Broussais gives the case of a lady, who, on feeling a living frog fall into her bosom from the claws of a bird of prey, while she was sitting on the grass, was instantly seized with such a profuse bleeding from the lungs, that she survived but a few minutes (5:188).

4. Brain

Numerous examples of apoplexy occasioned by anger are recorded both in ancient and modern works on this disease. Bonetus tells of a lady who, in consequence of a sudden fit of anger, was seized with violent and fatal apoplexy, and in whose brain blood was found largely diffused (5:146).

In the *Lancet* of Nov. 16, 1867, occurs a good example of the influence of Joy succeeding Anxiety in inducing death, recorded by the Registrar of Preston, Lancashire. The subject was a female, aged 43, the wife of an overlooker. It appears that the daughter of the deceased was traveling by railway when a collision occurred, which caused injury to a large number of passengers. Alarming reports concerning the accident had reached the mother as she was waiting at the station for her daughter, who soon after arrived unhurt. The transport of joy, supervening on a state of mental anxiety, was more than her physical organization could

bear. The mother, after clasping her child in her arms, fell down in a fit and expired twelve hours afterwards. In the medical certificate the case was returned as "apoplexy" (6:293).

5. Heart

There are many interesting cases of failure of the heart's action from states of mind which it is not always easy to analyze and to decide upon as regards their emotional or intellectual character. . . . There is a case on record of a man who was sentenced to be bled to death. He was blindfolded, the sham operation was performed, and water allowed to run down his arm in order to convey the impression of blood. Thinking he was about to die, he did actually die. Imagination had the same effect as the reality (6:111).

Tissot quotes from Water the case of a military man, who being about to possess the object of his desire, was so overjoyed that he suddenly expired. A post mortem examination was made and the pericardium was found to be distended with blood (6:273).

The following remarks by Dr. Sweetser are especially appropriate in this connection: "If the extreme of joy follow unexpectedly an emotion of an opposite character, the danger will be heightened. A story is recorded of two Roman matrons, who, on seeing their sons, whom they had believed to be dead, return from the famous battle fought between Hannibal and the Romans near the lake of Thrasymenus, and in which the Roman army was cut to pieces, passing suddenly from the deepest grief to the most vehement joy, instantly expired.

"Examples have likewise happened where culprits, just at the point of execution, have immediately perished on the unexpected announcement of a pardon. We may hence draw the important practical lesson that the cure of one strong passion is seldom to be attempted by the

sudden excitement of another of an opposite character. Violent emotions are, as a general rule, to be extinguished cautiously and gradually. Rapid and extreme alternations of feeling, and indeed all sudden extremes, are repugnant to the laws, and, consequently, dangerous to the well-being of the animal economy. To endeavor, at once, to eradicate deep grief by excessive joy, is, as I have seen it remarked, as irrational as it would be to expect the restoration of a frozen limb from pouring upon it hot water" (5:129).

The following three cases exhibit the extraordinary power of a strong impression and expectation, in the last of which at least fear appears to have played no part:

Example First

A person, calling himself a phrenologist, saw a child, five or six years old, playing in the street, bare headed, near our residence. He stopped the child, passed his hand over the head, terrifying the child greatly; and before he moved on, he said: "Poor child, you will die of water in the head." The child ran home, told his mother what had happened, and appeared excessively alarmed; inflammation of the brain speedily developed itself and the child died. There had been no indication of a tendency to brain-affection beyond the fact that there was quick and morbid excitability—just that disposition on which the cruel or injudicious conduct of the stranger was likely to be followed by the serious consequences which occurred (15:244).

Example Second

The effect of fearful attention on the nervous system has occasionally proved fatal. In the third volume of *The Doctor* a remarkable instance of this is related. The portrait, No. 113, in the British Museum, is of

Thomas Britton, surnamed, "The musical small-coal-man." A ventriloquist, one of the company at a dinner party at which he was present, predicted his death that night; and such was the impression made that it actually took place. The effects of mesmerism, of the "evil eye," of sorceries and incantations, are of this class. Thus, "the Polynesians," as Mr. Ellis states, "were confident that their sorcerers had the power of inflicting bodily disease from actual facts; but the sorcerers invariably confessed that incantations were harmless when practiced on Europeans," just as mesmerism is a failure on strong minded men and women (19:112).

Example Third

A lady, the daughter of Sir Charles Lee, died at the hour foretold by an apparition. Believers in the reality of ghosts will perhaps not dispute the fitness of such a case as an illustration in point, if we suggest that even a supernatural visitant might, by this principle bring about the event. The apparition, that of a little woman, appeared between her curtain and pillow at two o'clock, and assured her that by twelve o'clock that day she would be with her. "Whereupon," says the narrative, "she knocked for her maid, called for her clothes, and when she was dressed went into her closet, and came not out again till nine, and then brought out with her a letter sealed to her father, brought it to her aunt, the Lady Everard, told her what had happened, and declared that as soon as she was dead it might be sent to him. The Lady thought she was suddenly fallen mad, and therefore sent presently away to Chelmsford for a physician and surgeon, who both came immediately, but the physician could discern no indication of what the Lady imagined or of any indisposition of her body; notwithstanding, the Lady would needs have her let blood, which was done accordingly. And when the young

woman had patiently let them do what they would with her, she desired that the chaplain might be called to read prayers; and when prayers were ended she took her guitar and psalm-book and sat down upon a chair without arms, and played and sung so melodiously and admirably that her music master, who was then there, admired at it; and near the stroke of twelve she rose and sat herself down in a great chair with arms, and presently fetching a strong breathing or two, immediately expired, and was so suddenly cold as was much wondered at by the physician and surgeon" (6:112).

Here again we have effects corresponding to those produced by hypnotism or mesmerism. Speaking of the effect of imagination and expectation, Dr. Elliotson remarks: "If a mesmeric effect has once been produced—an effect unquestionably of mesmeric agency—we cannot be sure when it recurs, even under mesmeric processes, that it is not the result of Imagination, if the patient is aware of mesmeric means being employed in order to induce it. Whether Imagination could induce a violent inflammation of the eyes, with a severe eruption on the skin, on a certain day fixed upon by the patient long before, I will not say; but that the idea of a fit of convulsions, pain, etc., occurring on a certain future day and hour, is sufficient to excite it at the very time foretold, I have no doubt; and many such apparent predictions are of this nature and no predictions at all, but results of a strong Imagination" (6:381).

Says Wilkinson: "We have not to batter the human body to pieces in order to destroy it, but an artistic prick—a bare bodkin—under the fifth rib, lets out the life entire. Nay, had we neater skill of deadliness, a word would do it" (9:441).

CHAPTER III

THE RELATION OF THE MIND TO DISORDERS OF THE ORGANIC FUNCTIONS

Dr. Tuke, alluding to the mind as manifested under the aspects of intellect and emotion, asserts that it may "powerfully excite, modify, or suspend the Organic Functions, causing changes in nutrition, secretion, and excretion, and thereby affecting the development and maintenance of the body" (6:129, 305). Evidently in so far as the subject under consideration has to do with the flow of the Secretions and Excretions and of the Blood, we are dealing also with the relation of the mind to the Involuntary Muscles, which formed the closing topic of the preceding chapter.

I. THE SECRETIONS AND EXCRETIONS

1. Changes in Their Flow

Bernheim quotes Charpignon as saying, "When I think of an acid fruit, I represent to myself an apple yielding under a knife, or being crushed by my teeth; my mouth waters, and I experience a sensation almost as distinct as if the object itself had been the cause of it" (17:133). Likewise Dr. Tuke observes: "The salivary glands are so notably affected by ideas that they are frequently referred to. We know that the mere idea of food is sufficient to excite the functions of these glands. To procure sufficient saliva for his experiments, Eberle vividly imagined acid fruits. If a teaspoonful of colored water be placed in the mouth under the impression that it is tincture of pellitory, the amount of

saliva will be considerably increased. In the hypnotic state this would be still more effective" (6:132).

Here we have illustrations showing how certain mental states may cause an increase in the flow of this secretion. There are, however, other conceptions which have just the opposite effect. Dr. Sweetser, speaking of anger, remarks that "under its influence the saliva becomes diminished, and consequently inspissated, whence its frothy whiteness, and adhesiveness, and the frequent swallowing under its action" (5:149). Likewise it is quite common for orators and musicians to experience a dryness of the mouth and throat just before beginning to speak or sing, especially on great occasions. Moreover, Dr. Carpenter remarks that "violent emotions may suspend the salivary secretion; as is shown by the well-known test, often resorted to in India for the discovery of a thief among the servants of a family,—that of compelling all the parties to hold a certain quantity of rice in the mouth during a few minutes,—the offender being generally distinguished by the comparative dryness of his mouthful at the end of the experiment" (11:858).

Furthermore, as regards the gastric juice, Dr. Tuke asserts: "The secretion of gastric juice is increased by the idea of eating, as proved by experiments on men and dogs with gastric fistulae" (6:133).

As in the case of the saliva, other mental states result in a decrease of the flow of this secretion. For example, there was at one time brought to Dr. Beaumont, who was a surgeon in the U. S. Navy during the early part of the nineteenth century, a young man who had received a very severe injury in the stomach by the discharge of a musket only a few feet away. By skilful medical treatment he succeeded in healing the wound, which left an "aperture of about two and a half inches in diameter, through which could be witnessed the process of digestion." This remarkable circumstance

enabled him to ascertain how long it would take to digest many different kinds of food, which has proved of great value to medical science. In connection with these experiments he perceived "that anger or other severe mental emotions would sometimes cause its mucous, or lining coat, to become morbidly red, dry, and irritable, occasioning, at the same time, a temporary fit of indigestion" (5:149).

Referring to the gastric juice, Dr. Tuke observes: "In dyspepsia, which constitutes so forcible an illustration of the influence of abnormal mental conditions, a change in the character or amount of this secretion, may or may not be the principal cause, but that morbid feelings acting directly on the stomach through the pneumogastric and sympathetic nerves, do form one important element in the psychical genesis of the dismal symptoms comprised under this term, cannot admit of doubt" (6:327-8).

Hence we see that dyspepsia can be caused in either of two ways: It may be due, in the first place, to there having been received within the stomach too large a quantity of food, hard to digest, unsuitable to eat, or improperly prepared. But, on the other hand, no matter how suitable one's food may be, how well it has been cooked, how easy it is of being digested, or how small a quantity has been received within the stomach, if there be a mental state which has caused a cessation in the flow of the saliva and especially of the gastric juice, then, inasmuch as according to the teaching of all our physiologists, these secretions are absolutely indispensable to carry on properly the process of digestion, dyspepsia must inevitably follow. Moreover, is it not very evident that where one person suffers from indigestion because of improper food, nine and perhaps ninety-nine suffer from it in consequence of inharmonious mental states? This principle in regard to the increase and decrease in the flow of the saliva and gastric juice under

the influence of mental impressions evidently applies equally well to all the secretions and excretions throughout the entire body.

2. Changes in Their Composition

Thus far in our treatment of this topic we have confined our attention to a discussion of the effect of the mind in changing the quantity or flow of the various secretions and excretions. We now proceed to investigate the power in states of consciousness to change their chemical composition as well.

Liebig, the renowned German physician and chemist, laid down the following fundamental law or principle: "Every conception, every mental affection is followed by changes in the chemical nature of the secreted fluids" (6:135). Proof of this statement is based on inferences drawn from changes in their color, taste and odor, from their chemical analysis, and from changes in their effects.

1. Changes in Their Color, Taste and Odor

Gaubius, who was a professor of medicine and chemistry in the University of Leyden, having declared "that the natural properties of the juices may be so altered that, with astonishing rapidity, the bland becomes acrid, and the salubrious hurtful—nay, virulent"—asks, "Do you doubt it? I give you the example of an hysterical woman who, in a passion, vomits vitiated bile of every color and acidity" (6:329). Gaubius had noticed that the bile vomited up by this woman was changed in its color and taste. If so, then it must have been changed in its chemical nature. Moreover, so far as he can ascertain this change has not been brought about by any substance received into the body. Furthermore, he has observed that always, just before she vomits up this bile, she has gone into a state of intense passion. And, inasmuch as this has occurred time and again, he comes to

the conclusion that this disturbed mental state cannot be a mere coincidence but must be the real cause of this effect which he has witnessed. Likewise, a like change had been observed to occur in connection with other secretions and excretions of the body under similar circumstances, as is evident from the following statements:

"The action of mental anxiety or suspense (not fright) in causing a copious discharge of pale fluid is familiar enough to all, especially to the medical student about to present himself for examination, the amount being in a pretty direct ratio to his fear of being plucked. . . . The odor may be affected by the emotions, in man as in animals" (6:324).

"The character of the urine . . . among many animals . . . acquires a powerfully disagreeable odor under the influence of fear, and thus answers the purpose which is effected in others by a peculiar secretion" (11:859).

"The *halitus from the Lungs* is sometimes almost instantaneously affected by bad news, so as to produce fetid breath" (11:859).

"Whatever injuries the blood may have received from the passions of the mind, which as we know have all power to bless or to hurt it, are palliated by the removal of clouds of exhalations, as witness the odor of the breath" (9:83).

"In low animal passions the sweat is hircine, to suit the goat who owns it" (9:306).

"The *odoriferous secretion of the Skin*, which is much more powerful in some individuals than in others, is increased under the influence of certain mental emotions (as fear or bashfulness), and commonly also by sexual desire" (11:859).

"Two circumstances, noteworthy in many cases of insanity, were marked in the case under consideration; these were, the peculiar indescribable odor of the patient—the *bouquet des malades* of lunatic wards—

and the intensely offensive character of the intestinal excretions. Manifestly there is some unknown chemical change produced in the excretory functions by the profound nervous disturbance, not otherwise than as secretions are observably altered in composition by passion'' (21:344).

''The secretion of the lachrymal glands is, we know, excited by joy (and tender emotions) as well as by grief, its natural excitant. . . . The quality of the secretion seems to be altered by powerful emotions, the saline ingredients being increased, causing 'a strong brine' '' (6:334-5).

''The milk of a nurse, affected with anger, immediately acquires an unpleasant taste, and becomes injurious to the child'' (18:419).

2. Changes in Their Chemical Analysis

The *Medical Times and Gazette* for October 10, 1868, gives a list of experiments carried on by Dr. Byasson, all of which go to show that our states of consciousness are continually causing changes in the chemical composition of the fluids of the body. In this article Dr. Byasson goes so far as to affirm that by the analysis of the urine he can tell ''whether a man has passed the day in repose, or active thought, or muscular action, supposing the diet to have been uniform, and the external conditions similar during three days so employed'' (6:135). Likewise experiments made by Dr. Prout, Dr. Sutherland and others go to confirm the results obtained by Dr. Byasson (see 6:324-5).

Dr. Tuke observes: ''Dr. Prout, in his *Stomach and Renal Diseases*, states that the depressing passions, particularly Anxiety or Fear, will in many predisposed individuals cause a deposition of the triple phosphates in the urine. In adducing proof that the functional activity of the nervous tissues causes its disintegration

by the agency of oxygen (in the blood), Dr. Carpenter refers to the increase of alkaline phosphates in the urine after much wear of mind, whether emotional or intellectual, and alludes to 'more than one case of this kind occurring among young men, whose anxiety for distinction had induced them to go through an excessive amount of intellectual labor during their student life, and who found themselves forced to pay the penalty of that excess in a subsequent prolonged abstinence from all mental occupation involving the slightest degree of effort.' It is impossible to say in such cases how much of the cause is emotional and how much purely intellectual" (6:324).

3. Changes in Their Effects

This power in certain mental states to change the secretions of the body is not new, but has been known by medical men for a long time. Müller observes: "We are acquainted with the changes produced in the composition of secretions, in consequence of affections of the nervous system, rather by their injurious effects,—for instance, by the effects of milk and bile secreted, after the mind has been the subject of violent emotions,—than by any chemical examination to which they have been subjected" (2:vol. 1, 473).

On this point we quote the following from Dr. Tuke: "In the *Lancet* for July 14, 1860, is the report of the case of a boy, aet. 9½, who was bitten by a boy in anger. There was no evidence of rabies, but the boy died. He was seized with hydrophobia forty-eight days after the bite, and died in twenty-four hours. Trousseau quotes from Van Swieten, the case of a young man who died of rabies after having bitten his own finger in a fit of anger. Also that of an old woman who died with all the symptoms of rabies after she had received a wound from a cock in a passion. . . . Gaubius records several cases.

A soldier quarrelled with a woman, who thereupon bit his hand. He was seized with rigors and died. An enraged Italian youth, unable to revenge himself, bit his own hand and was seized with a deadly fear of water, as if bitten by a rabid dog" (6:326-7).

Equally convincing is the evidence derived from the effects of disturbed mental states upon the secretion of milk. "There is evidence," says Dr. Carpenter, "that the Mammary secretion may acquire an actually *poisonous* character, under the influence of violent mental excitement. . . . 'A Carpenter fell into a quarrel with a Soldier billeted in his house, and was set upon by the latter with his drawn sword. The wife of the Carpenter at first trembled from fear and terror, and then suddenly threw herself furiously between the combatants, wrested the sword from the soldier's hand, broke it in pieces, and threw it away. During the tumult, some neighbors came in and separated the men. While in this state of strong excitement, the mother took up her child from the cradle, where it lay playing, and in the most perfect health, never having had a moment's illness; she gave it the breast, and in so doing sealed its fate. In a few minutes the infant left off sucking, became restless, panted, and sank dead upon its mother's bosom. The physician who was instantly called in found the child lying in the cradle, as if asleep, and with its features undisturbed; but all his resources were fruitless. It was irrevocably gone.' In this interesting case, the milk must have undergone a change which gave it a powerful sedative action upon the susceptible nervous system of the infant" (11:861).

Likewise Dr. Kellogg of Port Hope, Canada West, relates the following case: "Not long since, I was called to see a child aged seven or eight months, which up to a short time before my being sent for, had been in a most thriving condition, exceedingly healthy and robust. I found the child in a state approaching complete coma,

in a condition much resembling that which results from hydrocephalus, or anæmia of the brain, as the result of some exhausting disease. It had suffered none such, however, and as the coma had come on suddenly, constipation of the bowels only having been observed as its forerunner, I felt puzzled to determine the true cause. After, however, a free action of the bowels, for which large doses of cathartic medicine were required, it rapidly regained its consciousness, and after passing dark green stools for a number of days completely recovered. The mystery which shrouded this case, and which I was not able to unravel at first, was soon, however, explained, for in conversation with a near neighbor I learned that the mother, who was a woman of very violent temper, had for a number of days been giving way to the most intense paroxysms of rage, which had been expended upon her husband for selling a piece of property against her wishes. During all this time she was nursing her child. I immediately requested the mother, if she wished to rear her offspring, of which she was passionately fond, to suspend nursing it under such a state of mental excitement; and if she could not make up her mind to be quiet and cheerful, it would be advisable to wean the child, or employ a wet nurse, while giving the reins to her passion, and not allow its force to be expended upon the frail being who was innocently drawing its nourishment from her bosom. She appeared to feel the justice of the reproof, and was, doubtless, more careful for the future, as the child did well, though not weaned for several months after the occurrence" (6:333-4).

"I am confident," Dr. Kellogg observes, "that I have frequently seen the death of the nursing infant result from ignorance of the mother of the extraordinary influence of mental emotion upon the secretion of milk" (6:333-4).

II. THE BLOOD

1. Changes in its Flow

Remarking on the phenomena of extravasation and inflammation Dr. Tuke says: "Increased vascularity under the influence of Emotion, chiefly when sudden, frequently causes extravasation or rupture of the small blood vessels. Such cases must not, of course, be confounded with those in which violent contraction of the voluntary muscles occasions injury to the vessels embedded in their tissue, and consequent effusion of blood. As vascularity, whether with or without extravasation of blood, forms one of the prominent signs of inflammation, it follows that the illustrations given will more or less merge into examples of an inflammatory condition of the part, attended by swelling, tenderness, and heat. In all, however, the influence of mental states upon the blood vessels is exhibited" (6:285).

Likewise Dr. Carpenter, having declared that "There is abundant evidence that a sudden and violent excitement of some depressing Emotion, especially Terror, may produce a severe and even a fatal disturbance of the Organic functions," presents a "remarkable example of local disorder of nutrition, occasioned by powerful emotion, and determined as to its seat by the intense direction of the attention to a particular part of the body," related by Mr. Carter. It runs as follows: "A lady, who was watching her little child at play, saw a heavy window-sash fall upon its hand, cutting off three of the fingers; and she was so much overcome by fright and distress as to be unable to render it any assistance. A surgeon was speedily obtained, who, having dressed the wounds, turned himself to the mother, whom he found seated, moaning, and complaining of pain in her hand. On examination, three fingers, corresponding to those injured in the child, were discovered to be swollen

and inflamed, although they had ailed nothing prior to the accident. In four-and-twenty hours incisions were made into them, and pus was evacuated; sloughs were afterwards discharged, and the wounds ultimately healed" (11:862-3).

A vivid idea or impression in a dream also could produce like effects. For example, "A man, thirty years of age, healthy and robust, saw in a dream a Pole with a stone in his hand, which he threw at his breast. The vivid shock awoke him, and then he found that there was on his chest a round mark, having the appearance of a bruise. Next day there was so much swelling, etc., that a surgeon was requested to see it, who, fearing a slough, scarified the part, and relieved it. The wound healed in a short time" (6:286).

Corresponding results can be readily produced by hypnotic methods, as is evident from the following experiments related by Bernheim in his *Suggestive Therapeutics*: "Finally, hemorrhages and bloody stigmata may be induced in certain subjects by means of suggestion.

"M. M. Bourru and Burot of Rochefort have experimented on this subject with a young marine, a case of hystero-epilepsy. M. Bourru put him into the somnambulistic condition, and gave him the following suggestion: 'At four o'clock this afternoon, after the hypnosis, you will come into my office, sit down in the armchair, cross your arms upon your breast, and your nose will begin to bleed.' At the hour appointed the young man did as directed. Several drops of blood came from the left nostril.

"On another occasion the same investigator traced the patient's name on both his forearms with the dull point of an instrument. Then, when the patient was in the somnambulistic condition, he said: 'At four o'clock this afternoon you will go to sleep, and your arms will

bleed along the lines which I have traced, and your name will appear written on your arms in letters of blood.' He was watched at four o'clock and seen to fall asleep. On the left arm the letters stood out in bright red relief, and in several places there were drops of blood. The letters were still visible three months afterwards, although they had grown gradually faint" (17:76).

Speaking of the effect of the mind upon the flow of the blood Dr. Tuke remarks: "The singular phenomena of Stigmata may be fittingly referred to here, for so far as they are genuine and not caused by mechanical irritation, they arise from the mind's influence on the capillary circulation through the vaso-motor nerves. No one has treated the subject in a more luminous manner than M. Alfred Maury, who forcibly observes that ecstatic mysticism, including these remarkable appearances, is 'the most striking proof of the influence of the Imagination upon the body, and is truly a miracle, in the sense of being one of those marvelous effects of the laws of thought whose secret escapes and whose extent confounds us.' He admits the fact of stigmatization (after making the allowance he considers necessary for imposture and exaggeration), and explains its occurrence, so far at least as the reference of the phenomena to a certain group of psycho-physical facts may be regarded as an explanation, by a consideration of the influence of dreams upon the skin. In mentioning those cases in which persons have dreamed that they received blows or wounds, and in the morning have found marks of inflammation on the body, and which sometimes, in the course of a day or two, become ulcers, he observes that 'just so with visionaries, under the power of the Imagination, by the concentration of the Attention, the blood is directed to the place where they fancy they are affected.'

"M. Maury's description of the experience of St.

Francis d'Assisi, whom he regards as the ancestor of the stigmatized, is much to the purpose. We shall make free use of it here. One day when exhausted by fast, and absorbed in reverie and prayer, he imagined that God ordered him to open the Gospels in order that he might there learn his will. 'Open me the Holy Book,' he exclaimed to a friar. Three times was this done, and three times it opened at the account of the Saviour's passion. St. Francis regarded this as a proof that he must carry his imitation of Christ much further than he had hitherto done. Bodily mortification he had doubtless practised, and had crucified his desires, but he had not yet subjected his body to the sufferings of the cross, the penance now evidently required by the Almighty. One thought, one definite idea, henceforth occupied him—his Master's crucifixion. His Imagination revelled, so to speak, in all His sufferings. He strove, while fasting more and more, and praying more and more intensely, to realize them himself. On the anniversary of the Exaltation of the Cross, resigning himself more than ever to one of these ecstatic contemplations, he imagined he saw an angel descend from the vault of heaven and approach him, the hands and feet attached to a cross. As St. Francis contemplated this vision, full of profound delight and astonishment, the seraph suddenly vanished. But the pious anchorite experienced from this spectacle a strange reaction, and his whole system was more than ever permeated with the idea of the realization of the physical sufferings of Christ in his own person. He then suffered pain in his hands and feet, and this, we are told, was succeeded by inflammation so severe as to terminate in ulceration. These wounds he regarded as the stigmata of the Saviour's passion.

"It might not be safe to take this or any other saintly narration as a *proof* of so remarkable an influence upon

the body, but when viewed by the light of facts coming within our own knowledge, we have, I think, no sufficient reason for rejecting the major portion of such an experience as this. So clearly defined an idea, so ardent a faith intensifying its operation, were sufficient to reflect it upon the body. We may accept some physical result, instead of soiling the fair fame of St. Francis d'Assisi with the charge of pious fraud—always an easy escape from scientific difficulties, but one which, we venture to say, will be less and less resorted to as the sole explanation of puzzling phenomena as we understand better the delicate nexus which unites body and mind in inseparable union.

“The periodicity of stigmata is a further interesting illustration of the influence of attention and imagination upon the direction and localization of the cutaneous circulation. On saints' days and on Fridays the seat of the marks became more painful and a brighter color indicated a fresh influx of blood to the part, the mystic's thoughts being specially concentrated upon the passion.

“Since the first edition of this book was published, the case of Louise Lateau, the ‘Stigmatisée’ of Bois-d'Haine Hainaut, Belgium, a young woman of twenty-four at the time when the appearances here described were recorded, has attracted much notice. The Royal Academy of Medicine of Belgium appointed a Commission to decide whether an article by M. Carbonnier, entitled ‘La maladie des mystiques: Louise Lateau,’ should appear in one of the Academy's publications. This Commission, consisting of M. M. Fossion (who did not act), Mascart, and Warlomont, deemed it necessary, in order to form a satisfactory opinion, to examine Louise herself. The report of this medical Commission, engaged for five months in the investigation, is the best authority we are likely to have as to the real facts of

the case. Is it a fact that she manifested the stigmata? If she did, what is the explanation arrived at by the Commission? Does it accord with the principles applied to the explanation of other phenomena detailed in this work?

“It should be premised that from her infancy Louise was constantly given up to religious exercises. . . . One night, April 15, 1868, she fell into a state of ecstasy, and continually talked in a religious strain. She saw the Virgin and several of the saints. This condition lasted till the 21st, and was followed by the appearance of the stigmata. Blood oozed from the left side on Friday the 24th, it returned on the Friday following, when blood also transuded from the feet; and on the following week from the palms of the hands likewise. Lastly, on the following Fridays, these hemorrhages returned, until September 25th, when, for the first time, blood flowed similarly from the forehead. The attack, as it is called, lasted at first seven or eight hours, but at the time of the Commission only two hours and a half. While it lasted, Louise ‘became insensible to all external stimuli, appeared to be present at the drama of Golgotha, and revealed by a well-marked mimicry the emotions by which her mind was affected.’ . . .

“The conclusion arrived at as regards these ecstasies and stigmata was that simulation was altogether precluded. ‘The stigmata and the ecstasies are real. They can be explained physiologically.’ ” (6:114-19).

Commenting on phenomena of this sort Dr. Tuke observes: “It may at first sight seem an extraordinary, almost incredible, thing that the action of the emotions should produce congestion in any clearly circumscribed spot, that spot being determined by the direction of the thoughts at the moment; but facts of the same kind, though less striking in their results, are familiar to all. Thus, no one would regard it as remarkable that on

picturing oneself in a dangerous position—the foot, for instance, caught in a man-trap—the limb should start spasmodically, or experience a sensation of discomfort or actual pain. Yet so simple a phenomenon involves the same principle as the more striking effect—the localization of thought or emotion in the body, indicated by some external signs more or less marked according to the age, sex, constitution, or health. . . .

“We may observe that the fundamental principle upon which the class of phenomena now under consideration depends is this: that the mere circumstance of thinking of any part of the body, whatever may be the exciting cause, tends to augment the local afflux of blood, and innervation. Motion or sensation, or both, occur in the locality to which the thoughts are directed; but this effect is greatly intensified if accompanied by a powerful emotion” (6:287-8).

Likewise the following comments of Dr. Carpenter on phenomena of this kind are equally explicit: “There is to the Writer’s mind . . . nothing either incredible or miraculous in the numerous recorded cases of ‘stigmatization,’ *i. e.*, the appearance of wounds upon the hands and feet, on the forehead, and on the side,—corresponding with those of the crucified Jesus,—from which blood has periodically flowed. The subjects of these cases were mostly ‘Ecstasies,’ *i. e.*, females of strongly emotional temperament, who fell into a state of profound Reverie in which their minds were entirely engrossed by the contemplation of their Saviour’s suffering, with an intense direction of their sympathetic attention to his several wounds. And the power which this state of Mind would have on the local action of the corresponding parts of their own bodies, gives a definite Physiological *rationale* for what some persons accept as genuine miracles, and others repudiate as the tricks of imposture” (30:688-9).

2. Changes in Its Composition

Says Dr. Tuke: "Persistent morbid feelings may act directly upon the character of the blood, and the blood thus changed may affect the sensory nerves, and produce innumerable subjective sensations. . . . The circulation of the blood, also, as well as its composition, is so much affected by emotional impulses, that from this cause likewise arise altered sensations, whether exaggerated or deadened (6:157). . . .

"Those who explain everything by the varying calibre of the blood vessels, would fully admit that mental states influence, not only the amount of the blood in a vessel during a given period of time, but also thereby its chemical composition. . . . That changes in the chemistry of the blood may, however, be produced in a more direct manner is, to say the least, very probable" (6:306-7).

The following statement by Wilkinson is even more emphatic: "Our morbid states of mind have the effect of true poisons upon the body, each having a pathological history of its own" (9:454).

Moreover, Hinton is even more explicit on this point. Says he: "It may not be amiss to remark that the morally good emotions are more healthful than the contrary ones. Selfishness, cruelty, jealousy, rage, are slow poisons to the blood; all that produce happiness are cordials" (12:30).

Equally decisive is the following statement by Dr. Gorton: "The exercise of agreeable emotions and ideas is highly salutary on the general health and circulation; while painful emotions are well known not only to destroy the physiological poise and equilibrium, but to actually poison the blood and secretions as effectually as the absorption of malaria or medicinal and toxical agents" (32:22).

The effects resulting from injecting the blood of one person into the blood vessels of another points in this same direction. Says Dr. Moore: "At one time, such immense and marvelous consequences were expected from the practice of transfusion, as plainly indicated the most unreasonable ignorance of physiology in those who professed to teach it. Patients and their physicians, with equally unwise expectations, have submitted to transfusion. They generally experienced violent pulsations, with vehement increase of heat, profuse perspirations, great pains in the stomach and loins, with a sense of suffocation, of course, associated with corresponding mental states. Excessive vomiting sometimes occurred, which calmed the turbulence and was succeeded by profound sleep. These facts only show that the blood of one man may be poisonous to another, and that the whole constitution of each being is individual, each part being consistent with the totality" (33:228).

That the blood of one person would prove poisonous to another we should naturally expect from the effect of mental states on the healing of wounds. On this point Dr. Sweetser remarks: "It is well known to every observant physician that fractious patients, other circumstances being the same, recover less promptly and are more exposed to relapses than those who bear their sufferings with more composure and resignation. And equally familiar is it to the surgeon that under a bad state of temper wounds heal less kindly, and when recently healed will even at times break out afresh; likewise, that external inflammations pass less safely and regularly through their restorative processes and that the pus of abscesses may be speedily transformed from a healthy to a morbid condition under such unfriendly moral agency" (5:154-5).

Furthermore, if the mental state be very intense it may cause instantaneous death. For example:

John Hunter relates the case of a man who, having gone into a fit of passion, died instantly and whose blood was found to be in a fluid or watery state (see 6:305-6). Likewise Dr. Wilks, in an article in the *Medical Times and Gazette* for Feb. 1, 1868, observes: "We hear sometimes of fear turning the whole mass of the blood. I believe this is literally correct. I have seen now so many cases of anaemia, some of them fatal, occurring upon a severe shock of the nervous system that I have no doubt of the fact" (6:306).

In speaking of hydrophobia Romberg remarks: "The ordinary vehicle is the saliva or mucus from the mouth of rabid dogs; but Hertwig has shown, in his excellent contributions to knowledge of the canine madness, that unmixed saliva, taken from the salivary duct, portions of the salivary glands laid upon a wounded surface, and, lastly, the blood itself, venous and arterial, are capable of communicating the infection" (29: vol. II, 142).

If, as all our physiologists hold, the secretions are built up from the blood, then is it not practically certain that those mental states which poison the saliva and the milk must also poison all the secretions and excretions of the body and also the blood as well? The following remarks of Dr. Carpenter on this point are worthy of the most careful consideration: "There is abundant evidence that a *sudden* and *violent* excitement of some depressing emotion, especially terror, may produce a severe and even a fatal disturbance of the organic functions; with general symptoms (as Guislain has remarked) so strongly resembling those of sedative poisoning as to make it highly probable that the *blood* is *directly* affected by the emotional state through nervous agency; and, in fact, the emotional alteration of the secretions seems much more probably attributable to some such affection of the Blood than to a primary disturbance of the secreting process itself" (30: 68).

III. THE EFFECT UPON NUTRITION

If the conclusions of these medical writers are correct, they are doubtless an explanation why various very depressing mental states are so potent in destroying the physical organism and causing almost instantaneous death. Dr. Tuke asserts: "If nutrition only occurs when the vital force is more powerful than the opposing chemical forces, whatever in mental action lowers vitality will proportionately interfere with nutritive processes" (6:136).

That a disturbed state of mind may seriously interfere with the process of nutrition and even result in death is very evident. Says Dr. Cooke: "Disquiet of mind, which is also a species of grief, often produces very distressing effects. A gentleman living in a suburban village became severely ill; the leading feature of his disease was irritability of the stomach. The ordinary medical attendant, and the family physician, and the second physician in consultation, prescribed in vain, and it could not be ascertained on what the continual tendency to vomiting depended. After some days the partner waited on one of these physicians, and having heard from him the obscurity of the cause, and the urgency of the danger, hinted that the patient's affairs were embarrassed, although it was not yet known to his connections, or even to his family. This information threw the required light upon the first and maintaining cause of the affection" (15:271).

A much more impressive and convincing example is the following from *Medical Essays* by Mr. J. H. Sealy: "Returning from a professional visit late one evening, I was met by a medical friend who begged me to see with him a gentleman whom we both had previously well known, stating that he was in a deplorable state and wished to see me. I at once consented and we walked

on together. 'You have, of course,' said he, 'heard of his unfortunate accident.' I said I had heard some vague reports of his having shot some gentleman accidentally. 'Alas,' said he, 'that was not all. You must remember him, one of the handsomest young men in the University.' I said, 'Yes.' 'Wait until you see him now; he is truly a victim to mental distress; his form is reduced to a skeleton, and his strength scarce that of an infant's. The circumstances are these: He was spending the shooting season at his uncle's, in ——shire, when his cousin, to whom he was much attached, about his own age, and an only child, irritated him by some frivolous remarks while on a shooting excursion; words ran high on both sides, and they being only attended by a little boy of ten years old, who could not interfere, a struggle ensued, in which the poor victim we are going to see shot his cousin on the spot. He then returned, scarce conscious that he did so, to his uncle's house, detailed the events, from the effect of which within a month he saw his uncle and aunt carried to their graves, while he exists a miserable wreck, soon to follow them.'

"Such as he was described I found him: his hand was hot and feverish; his cheek pale and withered, and his frame a perfect skeleton; his voice was deep and hollow; and his expression agonized and wretched, yet he complained of nothing. It was clear that his nervous circulation was suspended; yet his thinking principle was awake and consciousness alive. The mental or nervous stimulant was withdrawn, having by the shock of the accident been directed into another channel, which was necessary to keep in activity the animal functions, and a general stagnation ensued, until exhausted nature sank from inanition" (6:311-12).

What, then, has killed three perfectly healthy people inside of only a few weeks? Is it any substance received into the body? Evidently not. They have had the same food to eat and the same air to breathe that they have

always had and that their friends have had. What, then, has produced such fatal results? Evidently they are due to mental states. But is it conceivable that mental states have killed three perfectly healthy people in so short a time without having produced any effects upon the physical organism? Is not such a conclusion perfectly preposterous and absurd? If, however, the testimony of these medical writers be true, the intense grief and remorse into which these persons were thrown would not only change the flow and the chemical nature of the secretions and of the blood, but also affect them in such a way as to render them absolutely poisonous, thereby sending poison throughout the whole physical organism. Nor should we overlook the fact that in cases of this kind the most potent medicines avail nothing, and that they could be multiplied to an almost unlimited extent.

The following quotations from Dr. Carpenter reveal the pernicious effect of discordant states of consciousness not only upon the living but upon the unborn as well: "A fixed belief that a mortal disease has seized upon the frame or that a particular operation or system of treatment would prove unsuccessful, has been in numerous instances (there is no reason to doubt) the direct cause of a fatal result. Thus M. Ridard relates the case of a man, thirty years of age, who was affected with stone in the bladder, and who saw a patient die by his side, after being operated upon for the same complaint. The man's imagination became excited; his thoughts were constantly fixed upon the operation which he himself expected to undergo, and upon the probable death that would follow; and, in fact, without any operation at all, he died at the end of a month, affected with gangrene both of penis and scrotum. Hence also it is, that the morbid feelings of the Hypochondriac, who is constantly directing his attention to his own fancied ailments, tend to induce real disorder in the action of the organs which

are supposed to be affected.—In the same category, too, may be placed those instances (to which alone any value is to be attached), wherein a *strong and persistent impression* upon the mind of a Mother has appeared to produce a corresponding effect upon the development of the *fetus in utero*. In this case, the effect (if admitted to be really exerted) must be produced upon the maternal *blood* and transmitted through it to the foetus; since there is no nervous communication between the parent and the offspring. There is no difficulty, however, in understanding how this may occur after what has been already stated of the influence of minute alterations in the Blood, in determining local alterations of nutrition (11:864). . . .

“When it is borne in mind that during the entire period of gestation the Embryo is deriving its nutriment exclusively from the blood of the Mother, and that the condition of this fluid in relation to her own processes of Nutrition and Secretion, is subject to a very marked influence from her own mental states, it cannot fairly be thought improbable, that the developmental processes of the Embryo should be powerfully affected by strong Emotional excitement on her part. Among the facts of this case, there is, perhaps, none more striking than that quoted by Dr. A. Combe from Baron Percy, as having occurred after the siege of Landau in 1793. In addition to a violent cannonading, which kept the women for some time in a constant state of alarm, the arsenal blew up with a terrific explosion, which few could hear with unshaken nerves. Out of 92 children born in that district within a few months afterwards, Baron Percy states that 16 died at the instant of birth; 33 languished for from 8 to 10 months, and then died; 8 became idiotic, and died before the age of 5 years; and 2 came into the world with numerous fractures of the bones of the limbs, probably caused by irregular uterine contractions.

Here then is a total of 57 children out of 92, or within a trifle of 2 out of every 3, actually killed through the medium of the Mother's alarm, and the natural consequences upon her own organization; an experiment (for such it is to the Physiologist) upon too large a scale for its results to be set down as mere 'coincidences.'—No soundly-judging Physiologist of the present day is likely to fall into the popular error, of supposing that 'marks' upon the Infant are to be referred to some *transient* though strong impression upon the imagination of the Mother; but there appear to be a sufficient number of facts on record, to prove that *habitual* mental conditions on the part of the Mother *may* have influence enough, at an early period of gestation, to produce evident bodily deformity, or peculiar tendencies of the mind. The error of the vulgar notion on this subject, lies in supposing that *a sudden fright, speedily forgotten*, can exert such a continual influence on the nutrition of the Embryo as to occasion any personal peculiarity. The view here stated is one which ought to have great weight in making manifest the importance of careful management of the health of the Mother, both corporeal and mental, during the period of pregnancy; since the ultimate constitution of the offspring so much depends upon the influences then operating upon its most impressible structure. . . .

"Numerous cases were recorded a few years since (especially in the *Lancet* and *Provincial Medical Journal*) in which malformations in the Infant appeared distinctly traceable to strong impressions made on the mind of the Mother some months previously to parturition; these impressions having been persistent during the remaining period of pregnancy, and giving rise to a full expectation on the part of the Mother that the child would be affected in the particular manner which actually occurred. Of one very striking case of this

kind the Author is personally cognizant, it having occurred in the family of a near connection of his own" (11: 906-7).

IV. THE EFFECT UPON DISEASE

Let us now consider the bearing which these facts have on certain aspects of disease. Commenting on the deleterious effects of hard and long continued mental application, Dr. Hall asserts that "too intense attention, too long sustained, has produced its own baneful influence: the student for honors at Cambridge has too frequently induced fatal actions or disease in the brain or general system: such, for example, was the fate of Henry Kirk White" (22: vol. II, 33).

Likewise the following remarks by Unzer are to the same effect: "By deep and intense thought, the body wastes, the muscles become weaker, the blood is determined to the head, the extremities become cold; the blood is changed in composition, the sensorial property of the nerves is altered, and they become too sensitive, and excite irregular sentient actions which derange the sentient action of the other sensational conceptive forces; the functions of the viscera are irregularly performed, and in particular the digestion is much impaired. Hence it follows that deep studies and scientific pursuits are not the natural objects of man, but opposed to his health and well-being. Thus it is that those learned men who cultivate the abstract sciences are generally feeble, meagre, sensitive, splenetic, hypochondriacal, and fanciful, and have impaired digestion. On the contrary, the strongest and healthiest men, with good digestion, are little given to study the abstract sciences, and little capable of comprehending them. These principles have an important bearing on pathology" (18: 177).

Moreover, Dr. Tuke informs us that Descuret and Tissot held similar views in regard to the part played by hard study in the causation of disease, but does not

distinctly state whether they, like Unzer, held that these same mental states cause changes in the flow and composition of the blood. Says he: "Descuret devotes a chapter to the 'Mania of Study,' and cites Rousseau's exaggerated expression, 'The man who thinks is a depraved animal,' which he paraphrases, 'The man who thinks too much depraves his constitution,' and enumerates among the consequences of extreme mental exertion, gastritis, enteritis, hemorrhoids, cancer of the stomach or intestines, and chronic affections of the urinary organs—a still greater exaggeration. . . .

"All forms of disease are indiscriminately laid at the door of study by Tissot, namely, gout, tumors, aneurisms, inflammations, scirrhusities, ulcers, dropsies, baldness, apoplexies, convulsions, etc.; but it would be altogether opposed to medical experience to assert that the chances of inflammation or aneurism, and apoplexy or convulsions arising from study are equal. An aortic aneurism or a dropsy is much more likely to result from passion or other sudden emotional action than from thought" (6:136, 138).

In *McClure's Magazine* for February, 1894, there appeared an article by Edward Wakefield entitled, *Nervousness: The National Disease of America*. This article was based upon an interview with Dr. Samuel Wier Mitchell, President of the Medical Society of Pennsylvania, and a specialist in nervous diseases. According to the testimony of this eminent physician the number of deaths from nervous diseases "in some of the busy centres" has multiplied in this country "more than twenty times in the last forty years." Moreover, in our large centres of population, "more than one-fourth of all the deaths" are said to be due to nervous diseases alone. This rapid increase in nervous troubles is attributed to three principle causes: the "climate," the "dollar devil," and the "school fiend." Granting that the climate of this country is conducive to nervous

troubles, inasmuch as it has probably undergone no essential change in the past hundred years, it does not come in as an essential factor in ascertaining the real cause of the startling increase in the number of deaths from nervous affections. Hence the forces working to this end would seem to be mental. In speaking of the "dollar devil" he says that the craze to get rich is leading many of our brightest and most promising young men to take positions which would not be filled in other countries by persons who had not reached at least middle life and had long years of experience, with the result that, not being able to stand the strain, the nervous system gives way; some die immediately; others take to drink and destroy themselves in that manner, while still others lose their mental poise and fill our asylums for the insane. As regards the "school fiend," the work, says he, in our educational institutions is much more deleterious upon the young ladies than upon the young men and he is reported to have declared that it would be better far for the women of our country if no girl entered our schools less than seventeen years of age than under existing conditions, since, in multitudinous cases it means for them to come out to spend the remainder of their days upon the sofa or in the sick room and to be a burden rather than a help to society.

We do not understand Dr. Mitchell to mean that intellectual pursuits need necessarily be detrimental to one's health; for, in that case, the facts would appear to be against him. For instance, Dr. Tuke in speaking of the relation of mental activity to health and longevity, mentions a list of from forty to sixty persons who were noted for the enormous amount of intellectual work which they performed, all of whom lived to be from seventy-five to above one hundred years old (see 6:137). This would seem to prove conclusively that mental labor is not necessarily detrimental to health. A too severe tax, however, upon the intellectual powers, especially

during the periods of childhood and youth, according to the testimony of eminent physicians, is deleterious in its effects upon the physical organism. Yet there is every reason to suppose that comparatively few persons break down simply because of mental energy expended either in business or on books. It is probably not mental activity but mental states that are the chief cause of trouble. In other words, it is *moods* that kill—the fear, anxiety, and kindred states of consciousness in which the work is done and which, according to the testimony of the ablest physicians have a bad effect upon the processes of nutrition and so strike at the very centres of life within the body. It is when one's business goes wrong or disappointments and calamities come that the appetite fails and bodily weakness is the result. And if we add to these such mental states as anger, envy, jealousy, and the like, together with sensuality, then the effects will be still more injurious.

Furthermore, not only nervous diseases, but even the most severe organic troubles can, according to the testimony of the most eminent physicians, under certain circumstances, be produced by mental states. We have reference to diseases connected with the lungs, the liver, the stomach and other organs, such as consumption, jaundice, and even cancer. Dr. Murchison, who was assistant physician at King's College Hospital in London, also at the London Fever Hospital, and a lecturer and practitioner of medicine at St. Thomas's Hospital, in a course of lectures which he delivered before "the President and Fellows of the Royal College of Physicians" of London, expressed it as his honest conviction that even cancer is sometimes produced by mental states. Here are his words: "Even cancer of the liver appears sometimes to result from the functional derangement induced in the first instance by mental trouble. I have been surprised at the frequency with which patients suffering from primary cancer of the liver have traced

the commencement of their ill health to indigestion following protracted grief or anxiety. The cases have been far too numerous to be accounted for on the supposition that the mental distress and the cancer have been mere coincidences. A similar observation has, I believe, been made by Sir Robert Christison and by other eminent authorities" (10:156-7).

Moreover, Dr. Herbert L. Snow, after "several years work among cancerous patients," remarks as follows: "I am well aware that depression of mind as a forerunner of cancer has been noticed by numerous observers, and especially by the greatest in this field, Sir James Paget. . . .

"We should . . . expect to find advancing civilization characterized by an increase (both in frequency and in variety) among diseases of the nervous system. I need hardly add that the natural tendency to such increase is vastly enhanced by aggregation of the population in large towns; by a keener struggle for existence; by over education and excessive multiplication of examinations; by all sorts of artificial and unnatural habits, such as curtailment of the hours required by sleep, ill-ventilated dwellings, improper diet, and the too great use of stimulants; above all, by worry.

"We accordingly see a progressive increase in the relative frequency of insanity and its congeners; we find sclerosis, in its various forms, gradually becoming more prominent in our text-books; new and hitherto unnoticed forms of nervous derangement, functional or otherwise, are pointed out almost daily. Nor, in the paucity of our knowledge regarding such obscure maladies as Addison's disease, pernicious anaemia, diabetes, etc., can it be pretended that we have any adequate measure of disease primarily owning a neurotic origin. Among those people who are still able to play their part in active life, we find the majority dyspeptic, brooding, nervous, easily overborne by slight troubles,

prone to stimulants and narcotics; if females, delicate, hysterical, chronic invalids, full of imaginary ailments. From such, granted some extra strain, such as the loss of a relative, pecuniary or other troubles, are manufactured our cancer patients; or, at least, that large division who suffer from carcinoma. . . .

"We know very imperfectly how the nervous system influences nutrition and structure; but no man doubts that it does influence them, any more than he disbelieves its action on the circulation. And in the production of cancer, nervous depression may act indirectly; as, for example, fear or a chill appears to favor the lodgment and multiplication of the fever-bacillus. All we can say with confidence is that (in the absence of a mechanical cause) we rarely fail, on careful inquiry, to find a functional nervous one. And this not alone as predisposing, but as a direct excitant" (41:24-9).

Likewise Dr. Herbert Snow, after more than twenty years' experience in the treatment of this disease, observes: "Cancer is a disease of Civilization, almost restricted to the civilized state. The species contributing most to the mortality statistics are those directly associated with the increased worry, trouble, and anxiety which modern civilization brings in its train. . . .

"Carcinoma—the cancer of secreting glands—is the prevalent cancer of the female, as epithelioma of the male. . . .

"Carcinomata own two modes of causation—the neurotic and the mechanical. They may also supervene on certain benign tumors.

"Mental distress, worry, anxiety, form the immediate excitant in about 90 per cent. . . .

"Cylindroma—the cancer of the stomach and intestines—is almost always preceded, as in carcinoma, by mental anxiety and distress" (42:42-6).

If it be true that anger, fear, anxiety and kindred emotions not only change the chemical nature of the

secretions and of the blood but also render them poisonous, then inasmuch as the tissues of the body are built up from the blood, that they should be a cause of cancer is certainly reasonable if not inevitable.

Says Dr. Carpenter: "It is not a little remarkable that the influence of Mental states should be unmistakably manifested, not only in maladies in which Nervous disorder has a large share, but also in some—as Scurvy and Gout—which seem to depend upon the existence of a definite perversion in the condition of the blood" (30: 688).

CHAPTER IV

TELEPATHY OR THOUGHT-TRANSFERENCE

Thought-Transference, so-called, would seem to be a phase of sensation corresponding to that of touch or feeling. Nor, as far as we know, is there any reason to suppose that thought itself can actually be transferred from one individual to another by any mode of communication between man and man. That is to say, thought cannot be transferred from one person to another in the same manner as a material substance can, where the identical thing, as for example a book, passes from one to the other.

A very old, if not the oldest, mode of communication between human beings is through the voice or spoken word. One person, by means of the vocal organs, sets up vibrations or impulses in the atmosphere. These, striking upon the ear of another, cause a disturbance in the auditory nerve and so affect the brain. The result is a state of consciousness on the part of the one so affected. Yet there is no reason to suppose that the state of mind of the speaker and of the person spoken to are strictly identical. In fact there is every reason to infer that they are not. Perhaps the most that any individual can do for another through any mode of communication is simply to direct his attention or thought-activities along a particular line or centre them upon a particular subject—that is to say, to “furnish food for thought” rather than the thoughts themselves; to arouse the mind to vigorous activity instead of imparting ideas or mental conceptions.

This mode of intercourse necessitates that the different parties be in the presence of or at no great distance from

each other. In order to get over this difficulty and for various other reasons there arose in course of time the invention of signs or symbols to represent mental conceptions and especially certain sounds. Inasmuch as these could be transferred to material substances and the material substances could be conveyed from one place to another, it now became possible for persons to hold intercourse with each other who were living thousands of miles apart. Furthermore, since these symbols could be translated from one language into another—that is, from one form of symbolology into another form which corresponded—and could be transferred from one substance to another and so handed down from generation to generation, it now became possible for persons to hold converse with each other who belonged to different nationalities and lived centuries apart. Hence we of the present day can hold communion with Seneca and Marcus Aurelius, with Jesus, the Christ, and Gotama, the Buddha, with Plato and Aristotle; in short, with the greatest teachers and most profound thinkers of all ages. Thus man by his inventions has broken down the barriers of space and time and made it possible for all to enjoy the society of the wise and intelligent of days gone by. What this shall mean for any person, however, will depend upon his own growth or development of soul which, in turn, will be determined by birth, education, and all those factors which are leading the individual and humanity onward and upward towards the divine perfection.

Hence we see that in the first mode of communication between man and man the medium is the atmosphere and the organs of hearing; in the second, the ether and the organs of vision; and, if a person is born deaf and blind, then it is through the agency of some material substance and the sense of touch. Likewise, so long as any organ of sensation is in a more or less perfect condition, so long

is there an avenue through which one human being can find access to the soul or mind of another.

1. Experiments of Various Individuals

But the question arises, Is there any mode of communication of this sort otherwise than through the channels already mentioned? Because of certain peculiar experiences, many very intelligent persons were led long ago to believe that such must be the case. For example, two friends are out for a walk and for sometime have been engaged in quiet meditation, when suddenly one expresses the very idea and perhaps the exact words that are in the mind of the other and which he was just on the point of uttering. Or a person is seated in an audience among hundreds of people and, for some unknown reason, quickly turns round, when, to his surprise, his eyes meet the gaze of an acquaintance whose attention had been centered upon him for a few moments but, very likely, without the slightest intention of causing any such act on his part. Again, perchance, one is seated in his room when the thought of some companion suddenly enters his mind. A moment later he hears a knock at the door and no sooner does he open it than, lo and behold! there stands the identical person whom he was just thinking about. Likewise it may be that at some particular time there comes vividly into one's recollection the thought of some friend, known long ago, but seemingly faded from memory. A few days later a letter is received from this same person, and, strange to say, it is found to be dated the very day and hour when the thought of this individual came so distinctly to mind. Lastly, to speak of that which is still more remarkable, it may happen that during the waking state, but more likely while asleep, there comes over one an over-mastering conviction that some terrible

calamity has befallen a loved one, hundreds or, perhaps, thousands of miles away. Weeks and perhaps months pass by when, on a certain day, there comes the intelligence that the calamity, so ominously revealed, actually transpired at that very moment.

It was because of the multiplicity of experiences of this nature that long ago many thoughtful people were led to infer that there must be some mysterious or unrecognized mode of communication between soul and soul. Such being the case, they naturally began to experiment in order to ascertain whether this was really so. At first these experiments were carried on with contact between the different parties and took the form of the so-called "willing game." A person would be taken out of the room and, in some instances, blindfolded. In the meantime some one would conceal in an out-of-the-way place a knife, piece of money or anything of the sort. Then, the person having been brought in and placed at a distance from the article concealed, one or more individuals would place their hands gently upon this person and strongly will him to go in the desired direction. Strange to say, an experiment of this kind not unfrequently proved a genuine success. At first, however, most people attributed this to voluntary pushing on the part of those who touched the person operated upon. But later it was discovered that, even though there was no intentional or conscious pushing, the experiment not unfrequently proved successful. Hence a large number of intelligent people came to hold that here was absolute proof of a new method of thought communication.

At this juncture, however, a more careful study of the relation between mind and body by the physiologists convinced them that mental states influence the different parts of the physical organism in the most subtle manner; and that it would be practically impossible for anyone to place his hand upon the body of another and

strongly will him to go in a particular direction without having that mental state so affect the nervous and muscular system as to cause activity to take place at the point of contact, which activity might be perceived by the person operated upon and interpreted in such a way as to enable him to carry out successfully an experiment of this kind. Naturally this hypothesis of the physiologists was looked upon by the great mass of those who believed in a new mode of thought-transference but were ignorant in regard to the effect of the mind upon the body as unreasonable and even absurd.

Shortly, however, the physiologists established their theory by facts which no one could possibly gainsay or resist. As far back as the time of Lord Bacon there was an experiment which consisted in holding a ring or piece of money suspended by a silk thread in a glass. Then some one would mention to the person doing this the time of day—eight, nine, ten o'clock or any hour it chanced to be. It sometimes happened that shortly afterwards the ring or money began to oscillate until at length it struck against the side of the glass and, having struck the number of times corresponding to the hour of the day, gradually ceased its movements till finally it came to a standstill. At first the motion was thought by most people to be due to voluntary or intentional activity within the arm and hand on the part of the operator. Ere long, however, it was found that, even though the operator had no such deliberate intention and was not conscious of any such activity taking place, nevertheless the experiment was a success. Moreover, Bacon himself suggested that it might be due to some mysterious influence of the mind or imagination and advised a careful investigation of phenomena of this kind. No one, however, appears to have done so till the time of Chevreul, the distinguished French physician and chemist. In his day they had a custom of holding a "pendulum composed of a flexible wire and heavy

weight" over mercury or some other substance. After a while it would begin to oscillate as in the experiment carried on in Bacon's time and under similar circumstances. Inferring that the mind, acting upon the nerves and muscles, was the cause of the activity, he contrived a device whereby the hand became rigidly fixed. As he had expected, there was now no movement of the pendulum. Furthermore, he discovered that if the person was blindfolded the experiments were a failure (see 6:92-4).

Of course, after these demonstrations of Chevreul, no person acquainted with the effects of the mind upon the body could be induced to believe there was any proof of thought-transference so long as there was contact between the different parties. Consequently, those interested in establishing this theory were compelled to adopt some other method. Somewhat over a quarter of a century ago, that is, in 1875, there appeared a man in New Haven, Conn., by the name of Brown. He had been a student in Michigan University and, while there, had performed some wonderful feats in this line. Coming as he did with the very best of credentials from the professors of the University just mentioned, he easily won the confidence of the instructors at Yale, where he carried on a series of experiments in one of the lecture rooms connected with the Sheffield Scientific School. In doing so, a small wire was used—sometimes one twenty and a half feet long, sometimes one a little over two hundred. Of course, in all cases it was allowed to be slack. Previous to the experiments Brown was sent out of the room and blindfolded. Meantime some professor secreted in some part of the room the article to be found. After this Brown was brought in and placed at some considerable distance from the article concealed. Then he having taken hold of one end of the wire and some one or more of the professors hold of the other, they willed him to go to this particular place. Prof.

Lyman informs us that "in eight wire experiments six were entirely successful, the other two were partial failures, but in each case the failure was as remarkable as the success." As a result of these performances Prof. Lyman was led to conclude that facts like these could not be explained on the basis of "unconscious muscular action" and must result from the effect of one mind upon another through some agency hitherto unrecognized (see 37: 18f.).

Even here, notwithstanding there was no personal contact, yet a material medium was employed. The next step in advance was to do away with even this. Some five years later, that is in 1880, we find a Rev. Mr. Creery, living in Buxton, Eng., very much interested in the phenomena connected with the "willing game." Desirous of knowing how much of the success in those performances was due to involuntary pushing and how much to some other cause—for, in what took place, there were certain features which could not be satisfactorily explained on the basis of involuntary action—he proceeded as follows: Having five children between the ages of nine and sixteen, with these and a servant he carried on a series of experiments for an hour or so each evening, extending over a period of several months. In doing this, having gathered all the family in the same room, one of the children or the servant was sent into an adjoining one, when Mr. Creery decided upon some article in the room occupied by himself and the others, the name of which was to be held distinctly in mind. This being done, the person sent out was called in and stood quietly, often with closed eyes, while all fixed their attention upon the same very intently for a few moments. Rev. Mr. Creery says that he was surprised at the frequency they guessed right. This led him to try experiments much more difficult and so, instead of taking objects in the room, he took the names of towns, and also of persons. Yet, says he, the children guessed nearly

or quite as well. Moreover, he informs us that he had as many as seventeen cards drawn at random from a pack guessed right in succession (see 38:32-3).

An account of the doings of Mr. Creery fell into the hands of Prof. Barrett of the Royal College of Science, Dublin, who for some time had been interested in the study of this subject. As a result, Prof. Barrett visited his home at Easter, 1881, in order to ascertain whether he had carried on his work with proper precautions. While there he carried on similar experiments with like success, after which he instituted others of a more difficult nature. Having determined upon some object in the house the name of which was to be held in mind, they all centered their attention upon the child who still remained in an adjoining room, it having been arranged that when the idea of any object came into its mind, the child, having gone to any part of the house and procured it, should bring it into the room occupied by Prof. Barrett and the others. For example, an orange would be chosen, and the child, having gone to some room and secured one, would bring it to the professor. Or it might be a plate, saucer or anything of the sort. (See 38:34-6).

Describing a series of the experiments performed on one of these occasions the narrator says: "I wrote down, among other things, a 'hair-brush,'—it was brought; an 'orange,'—it was brought; a 'wine-glass,'—it was brought; an 'apple,'—it was brought; a 'toasting-fork,' failed on the first attempt, a pair of tongs being brought, but on a second trial it was brought. With another child (among other trials not here mentioned), a 'cup' was written down by me,—it was brought; a 'saucer,'—this was a failure, a plate being brought; no second trial allowed. The child, being told it was a saucer, replied, —'That came into my head, but I hesitated as I thought it unlikely you would name saucer after cup, as being too easy' " (38:37).

Later still, Washington Irving Bishop, who had

created such a sensation in this country, appeared in London, and, through the kindly assistance of Dr. William B. Carpenter, the distinguished writer on physiology, obtained access to the best literary and scientific circles of that city. For several weeks he carried on experiments in the drawing-rooms of the most influential an account of which soon after appeared in one of the current scientific journals. In the very next issue of the same there appeared another article on this same topic, written by Professor Barrett himself, in which he gave a description of the experiments he had made at the home of Mr. Creery. Of course, these were much more remarkable than those carried on by Dr. Bishop, since in those performances there had always been contact between the different parties, whereas in his, not only had there been no contact, but, in some of them, the person operated upon had not even been in the same room.

2. Experiments of the London Society for Psychical Research

All these experiments and a host of others of a similar nature created a profound interest in the investigation of thought-transference and kindred phenomena. As a consequence, there was founded in February, 1882, the London Society for Psychical Research. Henry Sidgwick, a professor at Trinity College, Cambridge, was chosen President; Prof. W. F. Barrett, F. R. S. E., of the Royal College of Science, Dublin, whose name we have previously mentioned, Prof. Balfour Stewart, F. R. S., of the Owens College, Manchester, and others were selected for the Vice Presidents. Among the honorary members we find Lord (Alfred) Tennyson, Alfred Russell Wallace, F. R. G. S., Prof. J. C. Adams, LL. D., F. R. S., of the Cambridge (England) Observatory and others equally distinguished. That is to say, the London Society for Psychical Research "is made up of, and

controlled by, as much genuine scientific ability and integrity as any learned body in the kingdom," and marks a new era in the realm of scientific investigation (see 38:1-16).

The aim of the Society is to examine into every phase of psychic phenomena—dreams, somnambulism, trance, hypnotism, mesmerism, thought-transference and kindred subjects. Different lines of work are apportioned to separate committees. The committee on thought-transference visited the home of Mr. Creery and instituted a series of experiments similar to those carried on previously by Mr. Creery and Prof. Barrett, obtaining similar results (see 38:38-55).

Perhaps some of the most interesting and impressive work in connection with this Society is that of the conveying of pictures of objects from one person to another by mental agency. One method is as follows: A person "blindfolded and his ears muffled," is seated at a table with pencil and paper before him. Then some individual draws on a piece of paper an object, it may be a geometrical figure or anything of a similar sort. The party, who is to transfer this to the recipient, first obtains a vivid conception of it in his own mind or imagination. Then, being seated by the person blindfolded and taking him by the hand, he centers his attention upon him with the intention of causing him to see the picture in his mind as plainly as he perceives it himself. After a short time he lets go his hand and the other, blindfolded or otherwise, draws upon the paper before him the impression he has received. Sometimes, instead of taking a figure that has been drawn, they make use of some object in the room, which answers the same purpose. Nor is it at all essential that there be contact between the different parties in order to obtain excellent results. The work that has been done in this way is certainly very remarkable (see 39:31-57).

The first three pages of the illustrations which follow are from a series given in *Mind-Reading and Beyond*, by William A. Hovey (38:134-43). As regards this work which comprises 201 pages, all, except the last 19, are "compiled from the published proceedings of the London Society for Psychical Research" (38:183). Miss R. and Miss E. received the impressions and Mr. Steel, "President of the Literary and Philosophical Society of Liverpool" and Mr. Hughes, "a very successful producer of impressions," imparted them. Referring to the circumstances under which they were executed the narrator observes:

"The originals of the following diagrams were for the most part drawn in another room from that in which the subject was placed. The few executed in the same room were drawn while the subject was blindfolded, at a distance from her, and in such a way that the process would have been wholly invisible to her or any one else, even had an attempt been made to observe it. During the process of transference, the agent looked steadily and in perfect silence at the original drawing, which was placed upon an intervening wooden stand; the subject sitting opposite to him, and behind the stand, blindfolded and quite still. The agent ceased looking at the drawing, and the blindfolding was removed, only when the subject professed herself ready to make the reproduction, which happened usually in times varying from half a minute to two or three minutes. Her position rendered it absolutely impossible that she should glimpse at the original. She could not have done so, in fact, without rising from her seat and advancing her head several feet; and as she was almost in the same line of sight as the drawing and so almost in the centre of the agent's field of observation, the slightest approach to such a movement must have been instantly detected. The reproductions were made in perfect silence, and

without the agent even following the actual process with his eyes, though he was of course, able to keep the subject under the closest observation" (38:132-3).

As regards the reliability of those on the last four pages, made "without contact" and also taken from the same source as the preceding (38:157-60), the report says: "Professor Barrett has seen the agent, Mr. J. W. Smith, of Brunswick Place, Leeds, and his sister, the percipient, and has carefully explained to them the necessary precautions" (38:152).

NO. 12. — ORIGINAL DRAWING.



Mr. Steel and Miss R. No contact.

NO. 12. — REPRODUCTION.



No. 15. — ORIGINAL DRAWING.



Mr. Hughes and Miss E. No contact.

No. 15. — REPRODUCTION.



Miss E. said, "It is like a mask at a pantomime," and immediately drew as above.

NO. 16. — ORIGINAL DRAWING.



Mr. Hughes and Miss E. No contact.

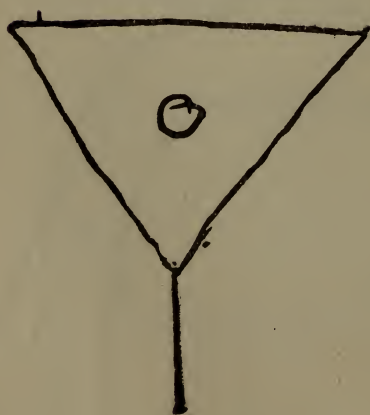
NO. 16. — REPRODUCTION.



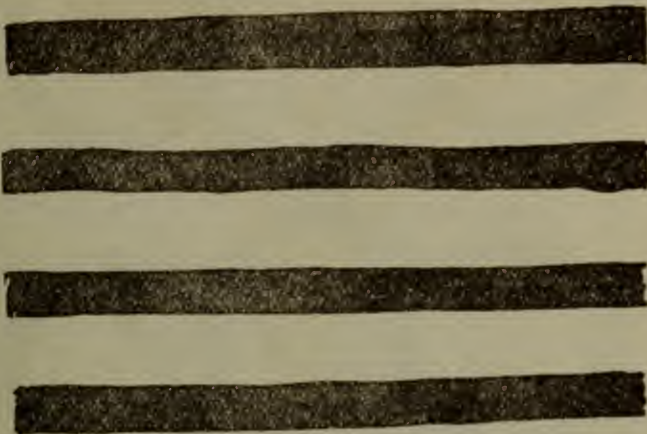
ORIGINAL DRAWING.



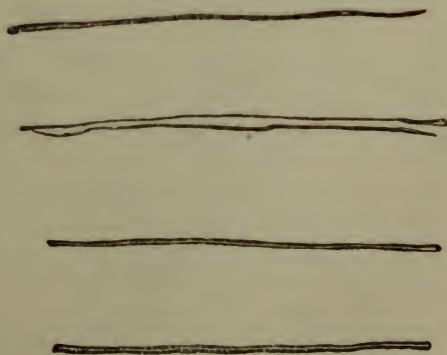
REPRODUCTION.



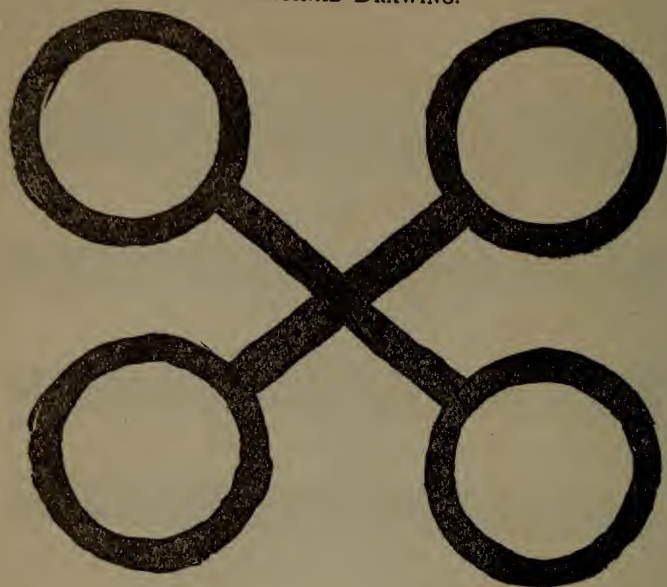
ORIGINAL DRAWING.



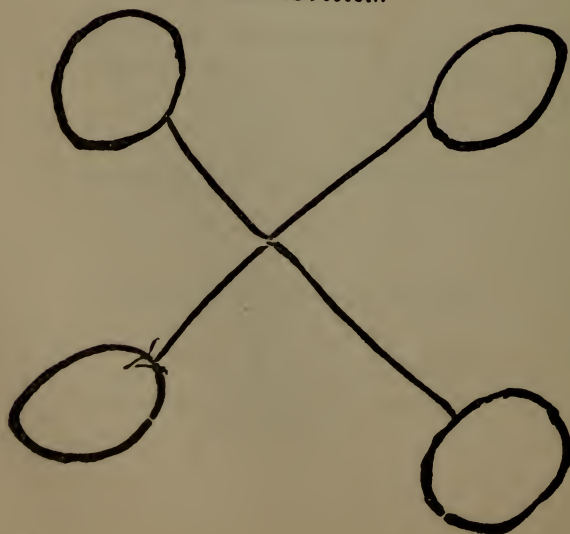
REPRODUCTION.



ORIGINAL DRAWING.



REPRODUCTION.



ORIGINAL DRAWING.



REPRODUCTION.



Numerous diagrams, or reproductions of mental pictures, similar to those already given are contained not only in the work of Mr. Hovey but also in that of Mr. Podmore, a member of the committee on thought-transference of the Society for Psychical Research, whose book (No. 39 in the list), like that of Mr. Hovey's, is for the most part a compilation from the reports of this organization. Likewise in the records of this Society we find cases cited where this transference of mental pictures has been done unconsciously or unintentionally. For example, a lady by the name of Mrs. Barber, who lived near Sheffield, England, went down to the city one morning to do some shopping. Having returned home and being seated at the dinner table, the sight of her little girl on the opposite side—"a sensitive, quick-witted little maiden of two years and six months old"—reminded her of something she had seen that morning and wished to tell her. Having caught the eyes of the child she was just on the point of saying, "Mother saw a big, black dog in a shop, with curly hair," when, before a single word had been uttered, her attention was suddenly called off in another direction. Almost instantly the little girl exclaimed, "Mother saw a big dog in a shop." In the greatest surprise the mother remarked, "Yes, I did, but how did you know?" for she had mentioned the circumstance to no one. Paying no regard to her mother's question she went on to say, "With funny hair." It would seem that not knowing the word "curly," she had used "funny," the best at her command. Said one of her little brothers who appears to have caught the same impression, "What color was it, Evelyn? Was it black?" She replied, "Yes." (39:168.)

Here we have an excellent illustration of the unconscious application of the same principle by which the London Society does work of a similar nature. It would be perfectly natural for the mother, in order to make

her story interesting to her little girl, to bring vividly before her mind or imagination a picture of the animal she had seen. Consequently, when she centred her attention upon her little maiden, without the least intention on her part, she stamped the impression upon her sensitive mind. Therefore all the child did was simply to tell what she had seen mentally.

According to these same reports it is possible for this to be done at a considerable distance. For instance, two young ladies, Miss C. M. Campbell and Miss R. C. Despard, living in opposite parts of London and very much interested in this subject, had agreed to be in their rooms at a certain hour. Miss Despard, who was to send the other a mental picture of some object, noticed upon her bureau a pair of old, tan-colored gloves. They were not her gloves. They were not her friend's. Nor had her friend ever seen them. Having obtained a vivid impression of them in her own mind, she directed her attention as strongly as she could to her friend for a few minutes. Describing her experience in connection with this incident, Miss Campbell remarks: "First, my attention seemed to flit from one object to another while nothing definite stood out, but soon I saw a pair of gloves, which became more distinct till they appeared as a pair of baggy, tan-colored kid gloves, certainly a size larger than worn by either R. C. D. or myself, and not quite like any of ours in color" (39: 128-9).

But would this young lady have received the impression had she not been in her room? It would look so from these reports. It is said that on another occasion these two persons were carrying on a similar experiment. The time determined upon was 11:50 to 11:55 A. M. of a certain day. Miss Despard says: "At ten minutes to twelve I concentrated my mind on an object that happened to be in front of me at the time—two scalpels, crossed with their points together—but in about five minutes, as it occurred to me that the knowledge that

I was then at the School of Medicine might suggest a similar idea to Miss Campbell, I tried to bring up a country scene, of a brook running through a field, with a patch of yellow marsh marigolds in the foreground. This second idea made no impression on Miss Campbell—perhaps owing to the bustle around her at the time” (39:128).

The account of Miss Campbell runs as follows: “Owing to an unexpected delay, instead of being quietly at home at 11:50 A. M., I was waiting for my train at Baker Street, and as just at that time trains were moving away from both platforms, and there was the usual bustle going on, I thought it hopeless to try on my part; but just while I was thinking this I felt a sort of mental pull-up, which made me feel sure that Miss Despard was fixing her attention, and directly after I felt ‘my-compasses-no, scalpel,’ seemed to see a flash of light as if on bright steel, and I thought of two scalpels, first with their points together and then folding together into one; just then my train came up” (39:127-8).

Let us take another case which is even more remarkable, especially in that it took place unconsciously. Dr. Dupré, a French physician, was out one day making calls, when, as he was going down the steps of a certain patient’s house, all of a sudden there came into his mind a picture of his own little girl lying at the foot of the stone steps of his home with a gash cut in her chin. Having never had an experience of this kind before he naturally wondered what it could mean. He “took note of the hour” and continued making his calls, but, finding it impossible to shake off the impression, finally decided to drive around to the house to see if anything of the sort had transpired. Having entered, on meeting his wife, he remarked: “Loulou is hurt. Is it serious?” She exclaimed, “Who told you?” “No one,” he replied, and then related to her the experience he had had only

a few hours previously, the time of which was found to correspond exactly with that when the calamity occurred (see 39:172-3).

Of course it would be perfectly natural for the mother or the servant, when they saw the child lying at the foot of the steps with an ugly gash in the chin, to have their thought go instantly to the little girl's father, who was a physician, and think what a pity that he was not present to tend to the wound. But it would seem that they, without being aware of it or having the remotest idea where he was, had sent a picture of the scene so clearly and forcibly that he himself received it. Had he not, however, been in just the right mental state there is no reason to suppose that he would have done so; for, just as it is possible for a person to be within the reach of another's voice and yet be so absorbed in thought as not to hear one word that has been spoken, so must it be considered equally possible for one to be in a state of mind such as to prevent one's getting an impression of this kind, even though it was sent and might have been received had the conditions been favorable. That is to say, here as elsewhere certain conditions must be fulfilled in order to secure certain results, and to demand this is scientific. Hence it would seem that, no matter where a person may be upon this earth—and perhaps we might just as well say throughout the entire universe—all that is needful in order to reach him by the mental method is simply to bring him vividly to mind with the earnest desire to be in communication with him and it shall come to pass, even though one have not the remotest idea as to where the person is.

Furthermore, not only pictures of objects but also sensations (or what amounts to the same thing) can evidently be conveyed from one person to another in this manner. In experiments of this kind some one, with eyes closed or blindfolded, is placed at a short distance from one or more persons who have agreed to inflict pain

at the same time on certain parts of the body and fix their attention upon the one who is to be affected by their mental state. For instance, they will stick a pin into the thumb, then into the wrist, then into the lobe of the ear, etc., in each case centering their attention upon the person to be impressed. In some of the experiments reported by the London Society the person operated upon has guessed right in nearly every instance (see 39:23-4, 34, 60-2).

Also cases are reported where the same thing has taken place unconsciously and at a distance. It is said that Mrs. Severn, the wife of an English landscape painter, was lying fast asleep in bed one morning when suddenly it seemed as if she received a terrible blow across the mouth. She awoke instantly and, seizing her handkerchief, put it to her mouth, supposing her upper lip to be bleeding very profusely. When, however, a moment later she removed it no blood was to be seen. Inasmuch as there was no person in the room and no piece of wall had fallen she quite naturally came to the conclusion that all this was due to some horrible dream, as, indeed, it might have been. Perceiving her husband was not in the room she inferred that "he must have gone out on the lake for an early sail, as it was so fine." Having looked at her watch she laid down for another nap. Afterwards, when seated at the breakfast table, she noticed that her husband every once in a while would take his handkerchief and put it up to his mouth. At length she asked, "Arthur, why are you doing that?" adding somewhat anxiously, "I know you've hurt yourself, but I'll tell you why afterwards." Thereupon he replied: "Well, when I was sailing, a sudden squall came, throwing the tiller suddenly round, and it struck me a hard blow in the mouth, under the upper lip, and it has been bleeding a good deal and won't stop" (39:162-3). Upon inquiring as to when this had occurred, it was found to have transpired at the very time when she had had this peculiar experience in bed.

Of course it would be perfectly natural for her husband, when he expected the boat to be capsized and he himself very likely to go to the bottom of the lake, to have his thought go instantly to his wife, and in this way he seems to have caused her to pass through an experience similar to his own, although the same change did not take place in her physically. That such, however, might have been the case we know from various incidents already related (see pages 61-7). Furthermore, what is true in regard to the transference of pain is also true in regard to the transference of taste, color, and, probably, every phase of sensation (see 39:20-3, 32-4).

Moreover, ideas, at least of a general character, can be transferred in this way, as has already been shown in discussing the phenomena connected with the so-called "willing game" (see pages 86-91). In those instances it was done intentionally and for a specific purpose. We will now give an illustration or two showing how the same thing may take place in the most unconscious manner. Bishop Wilberforce was one day seated at a table in his library with several other clergymen, when he abruptly exclaimed, "I am certain that something has happened to one of my sons." Some time afterwards intelligence was received that his son, who was on board a ship, had at that identical moment met with a severe accident. In a letter, written at the time and dated Mach 4, 1847, the Bishop observed: "It is curious that at the time of his accident I was so possessed with the depressing consciousness of some evil having befallen my son Herbert that at last, on the third day after—the 13th—I wrote down that I was quite unable to shake off the impression that something had happened to him and noted this down for remembrance" (38:60).

We will cite another case which is, perhaps, even more wonderful. A man living in East Boston had committed a crime for which he was sentenced to the State Peniten-

tiary for life. He had a wife and little boy five years old, of both of which he was exceedingly fond. They were allowed to visit him from time to time and, whenever they parted, so strong were his feelings that he could scarcely restrain his tears. One Sunday morning when the lad was playing on the wharf he fell off into the sea and was drowned. No one witnessed it at the time nor was his body found till three days afterwards. Then his mother wrote the Warden asking him to tell her husband that their little boy was dead, but that she would tell him how it happened when she came to see him. The Warden called the prisoner and, after some preliminary remarks to help pave the way, he informed him that he had sad news to tell him. Said he, "I know what it is, Mr. Warden; my boy is dead." "How did you hear of it?" the Warden asked in surprise. "Oh, I knew it was so; he was drowned, was he not, Mr. Warden?" continued the prisoner. "But who informed you of it?" he again asked. "No one," replied the prisoner. "How, then, did you know he was dead, and what makes you think he was drowned?" inquired the Warden still again, to which query the prisoner replied as follows: "Last Sunday your little boy was in the chapel; he fell asleep, and you took him up and held him. As I looked up and caught sight of him lying in your arms instantly the thought occurred to me that my boy was dead—drowned. In vain I tried to banish it from my mind, to think of something else, but could not; the tears came into my eyes, and it has been ringing in my ears ever since; and when you sent for me my heart sunk within me, for I felt sure my fears were to be confirmed" (39:170-1).

Probably as this boy fell into the water his thoughts went instantly to his papa, who loved him so passionately and whom he naturally loved greatly in return. Also the very circumstance that the mind of the father was fixed upon the child at the probable time of the calamity

may have aided much in giving vividness to the impression.

3. Explanation and Practical Value

In the light of this and a vast amount of other testimony of a similar character, derived not only from the London Society for Psychical Research, but from a host of individuals whose veracity cannot be called in question, it would look as though images of objects, sensations (or what corresponds to the same thing) and ideas (at least of a general character) can be produced by the influence of one mind upon another otherwise than through the ordinary channels. If so, how then is it brought about? Perhaps the best way to get at the *modus operandi* is by means of analogy. It is said that "A swinging pendulum suspended from a solid support will throw into synchronous vibration another pendulum attached to the same support if the period of oscillation of the two be the same; the medium of transmission here being the solid material of the support. One tuning fork or string in unison with another will communicate its impulses through the medium of the air. Glowing particles of gas, acting through the medium of the luminiferous ether, can throw into sympathetic vibration cool particles of the same substance at a distance. A permanent magnet brought into a room will throw any surrounding iron into a condition similar to its own; and here the medium of communication is unknown, though the fact is undisputed. Similarly, we may conceive, if we please, with many modern philosophers, that for every thought there is a corresponding motion of the particles of the brain, and that this vibration of molecules of brain stuff may be communicated to an intervening medium, and so pass under certain circumstances from one brain to another with a corresponding simultaneity of impressions" (38:67-8).

Viewed in this light the effect of mind upon mind is

simply another phase of the relation of the mind to physical sensation, since all sensation can be resolved in the last analysis to that of touch or feeling. Hence looked at from this standpoint thought-transference can be regarded as scarcely more remarkable than that communication which takes place between persons through any of the ordinary channels of sensation.

Granting such communication to be possible, of what practical value could it be to humanity?

In the first place, it might, perhaps, be utilized as a means of telegraphy. For, if pictures can be reproduced or sent from one mind to another by the mental process, a system of symbols could be adopted which might serve as a medium for transmission of this kind.

Secondly, according to the testimony of Washington Irving Bishop, it could be made a means of detecting crime. In a letter which appeared in the Boston daily papers Nov. 17, 1886, he observes: "Whilst enjoying, during the last Christmas holidays, the distinguished honor of being the guest of their Imperial Majesties, the Emperor and Empress of Russia, at their palace at Gatchina, I was asked whether the power of thought reading, the genuineness of which, since 1869, I have so repeatedly and successfully demonstrated before the élite of the scientific world, could be utilized in the detection of crime. I replied that the time was approaching when the power of thought reading would not only be applied to the detection of criminals, but to the diagnosing of disease, and I asked the imperial parties to enact the scene of a supposed murder during my absence from the palace. This suggestion having been complied with, I re-entered the imperial apartments and, having stood for a few moments by the side of the supposed murderer, His Imperial Highness the Grand Duke Constantine Constantinovitch, I obtained a complete mental picture of the events which had occurred during my absence. I then discovered and seized the weapon, which had been

concealed, and re-enacted, in minute detail, the imaginary tragedy, thrilling with wonder the imperial party and terrifying the superstitious Cossack soldiers, who believed my power to be the result of some unholy alliance with the other world."

Furthermore, it would doubtless be of service in the healing of disease, inasmuch as inharmonious mental states could to a greater or less extent be eliminated in this way and harmonious ones established in their stead. A good illustration of this is, perhaps, to be found in the following case related by Prof. Gregory: "Mr. Lewis met a party of fifty ladies and gentlemen in my house one evening in the end of November or beginning of December, 1850. He acted on the company *en masse*, and affected several, among them a lady, a member of my family, who was susceptible, and had frequently been magnetized by others. This lady, when magnetized, loses the power of her arms, her eyes are closed, and the sensations she experiences are very marked and well known to her. Mr. Lewis, not being told how strangely she had been affected by him, did not do anything to remove the effect, and the consequence was a headache, to which she is naturally very subject. This she ascribed to her not having been demagnetized, and it continued next morning. When I saw Mr. Lewis, after my lecture at 11 A. M., he asked me how the lady was. I mentioned her headache, as well as her idea of the cause of it. Mr. Lewis then said, 'Oh, never mind the headache. I shall think of her some time during the day and dismiss her headache.' This I begged him to do, as I knew that such things could be done. He then left me. When I returned home at 5 P. M. I had quite forgotten this conversation, when the lady in question recalled it by saying as I entered the room, 'What do you think of this? I have been magnetized in your absence.' 'Indeed; by whom?' 'By nobody. I was sitting at the piano-forte playing at half-past three, when I felt as if

strangely magnetized; my arms lost their power; I could no longer play, and had all the usual sensations. In a few minutes I was compelled to lie down on the sofa and fell into a short magnetic sleep. When I awoke my headache was quite gone.' 'Did you mention this to any one at the time?' 'I was alone, but just as I woke a lady who was here last night called and I told her of it, adding that I felt sure that Mr. Lewis was magnetizing me.' I then said that he had undertaken to do so, but that I did not know whether he had done it or not. In the evening I saw Mr. Lewis again at a large party, and, in the presence of Dr. W. F. Cumming, who felt much interest in the case, I asked him whether he had kept his promise about the lady's headache. He said he had. Dr. Cumming then asked him at what time, when he at once answered, 'at half-past three, when I returned to my lodging. I could not do it sooner'" (4:97-8).

Inasmuch as the lady who had the headache was not aware that she was going to be treated by Mr. Lewis here would seem to be a bona fide case of healing by thought-transference or through mind acting upon mind at a distance.

CHAPTER V

THE PRINCIPLES OF MENTAL OR PSYCHIC HEALING

Dr. Moore observes: "The body can be influenced only by four kinds of force—chemical, mechanical, vital and mental. . . . But the mind acts as clearly and distinctly on the body as either chemical, mechanical or vital agency. . . . Mind, in fact, is the mightiest power we know, and perhaps, properly speaking, the only power. . . . Chemical action is dependent on electrical action, and electrical action is dependent on some superior power; the same, it may be, as that which causes gravitation, magnetism, polarity, heat, light, and which pervades all elements; a power which cannot be called material, and which obeys only that will which evoked the universe and still sustains it. In short, all power may be traced up directly to the mind that created and manages all things" (34:163-5).

In discussing this subject we, for convenience, shall divide it into three parts or sections.

I. HEALING AS RELATED TO DISORDERS OF SENSATION

By means of mental agencies it appears possible not only to perfect to a greater or less extent the organs of sensation, but also, within certain limits, to remedy imperfections of the same as well. Dr. Braid, referring to a person whom he had operated upon for deafness in carrying forward his hypnotic experiments, says: "The case of Nodan has already been referred to . . . and I shall therefore merely add here that he was twenty-four years old, was never considered to have had the power of hearing, properly so called, according to the opinion of the head master of the Deaf and Dumb Institution, where he was a pupil; that after the *first* operation I

satisfied myself *he had no sense of hearing*, but after the second, which I carried still farther, he *could* hear, and was so annoyed by the noise of the carts and carriages when going home after that operation that he could not be induced to call on me for some time. He has been operated on only a few times, and has been so much improved that although he lives in a back street he can now hear a band of music coming along the front street and will go out to meet it. I lately treated him and found he could hear in his room on the second floor a gentle knock on the bottom stair. His improvement, therefore, has been both decided and permanent, and is entirely attributable to hypnotism, as no other means were adopted in his case" (8:244).

Alluding to the means whereby he was induced to treat cases of this kind and on the success that followed, he remarks: "The extraordinary excitement of the auditory organ, which I had observed in the course of my early experiments, and the fact that hearing was the last sense to disappear during this artificial sleep (unless we except that of the sensibility to a current of air) led me to anticipate most satisfactory results from this process in the treatment of deafness, arising from torpor of the auditory nerves. I consequently tried it in such cases, and where there has not been destruction, or irreparable organic injury to the auditory apparatus, I can confidently say I know of no means equal to hypnotism for benefiting such cases. Of course, it cannot suit all cases, and in some which bid defiance to all other known modes of treatment" (8:239).

Farther on he asserts: "Moreover, from having witnessed its extraordinary power of rousing the excitability of the auditory nerves, I entertained the hope that it might thus be capable of exciting some degree of hearing from the increased sensibility of the nerves compensating for the imperfection of the organ. I was not, and am not even now, so visionary as to expect *perfect*

tion of function where there is great imperfection of the organ. Perfection of organization and function must be coexistent; at least the function cannot be *perfectly* performed when the organization is *much* impaired.

"The result of my first trial was beyond my most sanguine expectations, which induced me to persevere, and the result has been that I have scarcely met with a case of congenital deaf mute where I have not succeeded in making the patient hear in some degree. . . .

"I must not, however, omit to add that many cases may show no improvement at a first or second trial, and yet be very satisfactory after a few trials. According to my experience there is much greater chance of benefiting congenital deaf mutes than those who have become so from disease or accident to the extent of total loss of hearing" (8:241-2).

The following remarks by Sully, regarding vision, are very suggestive in this connection: "It was found by Himly that when the retina is over-excitabile every stimulus is raised in the spectrum scale of colors. Thus violet becomes red. An exactly opposite effect is observed when the retina is torpid" (40:68).

Not only in treating disorders of hearing but also of vision Dr. Braid seems to have met with remarkable success. Among other examples he cites the following: "Mrs. Stowe, aged 44 . . . has been troubled with weakness of sight for twenty-two years so as to require glasses to enable her to read or sew. When tested today April 8, 1842, without her glasses, could not distinguish the large (capital) letters of advertisements in a newspaper, nor large heading of the paper. After being hypnotized for eight minutes she could distinctly read both the large and small heading and day, month and date of the paper. . . . 10th, called on me and informed me she had been able to make herself a blonde cap and to thread her needle without spectacles, which she could not do before for twenty-two years. 12th, continued

improving; told me she had been able to write up her accounts without glasses. . . . This patient has retained the improvement of her sight" (8:233-4).

The following case related by him is even more remarkable: "Mrs. C., aged 83, had, from her age, required the use of glasses for many years, to enable her to sew or read. Last August I hypnotized her for deafness, with very decided advantage, and I told her I also expected to improve her sight at the same time. She was very incredulous, but was agreeably surprised to find that after a *second* operation she was not only able to *hear* much better, but also to sew some flannel, threading her needle *without* her glasses. She had been thus occupied for several hours when I called to see her, after the *second* operation" (8:234-5).

The fact that this lady was "incredulous" did not prevent her being benefited. Nor is incredulity or want of faith on the part of the patient any barrier to being healed by the hypnotic method, since the hypnotist, when he gets the patient under control, can arouse faith which, in most kinds of healing, plays a most important part. Yet Dr. Braid plainly states that he could not cure every case. Says he: "There have been cases in which I have tried this method without success. . . . Cases of confirmed amaurosis, which have resisted every other known remedy, and which were only undertaken by me at the desire of the patients and sometimes of medical men also, as a forlorn hope, have, as in most cases was suspected might be the result, proved unsuccessful" (8:235).

Real defect of the organs of vision was, however, cured by Dr. Braid. The following case, although quite long, is so important that we give it in full: "Mrs. S., one of my own near relatives, had a severe rheumatic fever in January, 1839. During the course of this disease the left eye became implicated, involving both the internal and external structures of the organ. She had the

benefit of the advice of one of the first-rate oculists in Edinburgh. She was under his care till the August following, when he considered further attendance unnecessary, but gave such instructions as he deemed expedient for her future management of it, and which had been duly attended to till the period when I first saw her, in June, 1842. At that time she came on a visit to my house. The eye was free from pain, but was of no service as an organ of vision. There was an opacity over more than one-half of the cornea, sufficient to prevent distinct perception of any object placed opposite the temporal half of the eye, all being seen through a dense haze; and objects placed towards the opposite side were seen very imperfectly, owing to the injury the choroid and retina had sustained in the points on which the images of such objects were reflected. The opacity of the cornea was not only an obstacle to distinct vision, but was also a source of annoyance from its disfigurement, being obvious even to those at a considerable distance.

“Notwithstanding the great advantage I had seen other patients afflicted with affection of the eyes derive from hypnotism, it never occurred to me that such a case as that of Mrs. S. was likely to be benefited by such an operation. I had, however, recommended it to her for a severe rheumatic affection of the right shoulder and arm. She had been in my house for about three months before she could make up her mind to undergo the operation, but at length the violence of the pain impelled her to try it, or anything else I should recommend. I of course hypnotized her, which immediately relieved her pain so much that after the first operation she could move the arm freely. The operation was repeated the following day, with complete relief as regarded the arm; and to the surprise and delight of the patient, myself and others present she found her *sight* so much improved as to be able to see everything in

the room, and to name different flowers, and distinguished their colors, whilst the right eye was shut, which she had not been able to do for more than three years and a half previously. I consequently now repeated the operation daily, and in a very short time had the satisfaction of seeing the cornea so transparent that it requires close inspection to observe where any opacity remains. Neither external nor internal means were used during this improvement, nothing but the hypnotizing was had recourse to; and during the three months I had an opportunity of watching it prior to these operations, there was no visible change in the condition of the organ. I should observe that after the first operation there was considerable smarting in the eye, which continued all night, and, in a less degree, after future operations, which, no doubt, roused the absorbents, and effected the removal of the opacity of the cornea. Stimulating the optic nerve to greater activity, however, must have been the chief cause of the very rapid improvement which enabled her to see objects after second operation. I should remark that the sight, with regard to objects seen from the *temporal* side of the eye, is much more distinct than from the nasal side, owing to the retina and choroid having sustained irreparable damage during the inflammatory stage at the commencement of the attack of 1839" (8:236-8).

Having given the results of similar experiments Dr. Braid observes: "Here, then, we have seen three cases of improved vision consequent on hypnotizing for other affections; and where, consequently, the improvement could not at all be attributable to imagination, but to the altered condition in the capillary circulation and distribution of the *vis nervosa*" (8:238-9).

Says Müller: "The idea that a structural defect will certainly be removed by a certain act increases the organic action of the part and sometimes produces a cure. Hence the cure of warts by what is called sympathy.

. . . In such cures the mental idea . . . merely excites an increase of the natural nutritive process. The natural organic action being increased is inimical to the existence of a morbid growth, such as a wart; and, hence, the latter wastes" (2: vol. II, 1398-9, 1405).

Likewise Dr. Tuke, speaking of the "influence which we cannot doubt that mental states may, under favorable circumstances, exercise upon absorption," observes: "Professor Laycock has maintained 'the possibility of a lymph deposit being absorbed from an opaque cornea by the daily direction of the Attention to the part for a prolonged period by means of mesmeric passes.' If this be so, we have a fact, the principle contained in which forms a most important basis for the practical treatment of some diseases. It is in entire accordance with the physiological law laid down by Müller: 'An idea that a structural defect will certainly be removed by a certain act increases the organic action of the part' " (6:138).

The results obtained by Dr. Braid in a state of hypnosis can be effected without the patient being hypnotized or unconscious just as well, provided the same mental states are produced, as is evident from the cases mentioned under sections II and III which follow. In Chapter I we gave examples, showing how easily certain mental states paralyze or render useless an organ of sensation (see page 5). They are, however, equally potent in remedying disorders of this kind. Take, for example, the following as an illustration: It is said that during a Revival held in Ireland "a great number were smitten down suddenly, and fell as nerveless and paralyzed and powerless as if killed instantly by a gunshot." Among these is mentioned the case of a girl, who in the midst of the excitement fell down instantly, deprived of speech and sight. Medical treatment was resorted to, but in vain. She remained in this condition for eighteen hours, when, being present again at the

meetings, she was instantly healed. "Mental impressions, similar to those which caused, cured the malady" (6:247-8).

Incidents of this nature go to prove that where a disorder of the senses has been caused by a mental state it not unfrequently can be cured by the same agency. Nor will it make any difference whatever by what device the emotion conducive to healing is brought into operation. Dr. Braid appears to have had remarkable success in dealing with maladies of this kind by the hypnotic method.

Furthermore, just as it is possible by hypnotic methods to deprive a person of sensation through a given organ by an impression alone, no real change in all probability having been produced on the organ itself, so, it would seem, this sometimes occurs in ordinary life. In cases of this kind, as in hypnotism, all that is needful to effect a cure is simply to dispel the delusion. The following case related by an eminent Boston physician may doubtless be classified under this head: A person had gone to oculist after oculist, all of whom could find no trouble with his eyes. At length two doctors decided to try the following experiment: It was arranged that the patient should look through a long hollow tube obtained for the occasion. Just before making the trial the physicians, in the presence of this person, discussed very seriously and earnestly remarkable cases of healing claimed to have been effected by this method of treatment, in order to make as potent an impression on the patient's mind as possible. When the impression had been made sufficiently strong, the tube was handed to the patient and almost immediately after he placed it to his eyes his sight was restored. Says Dr. Moore: "A man was wounded at the battle of Austerlitz, and ever after he was insanely convinced that he had no bodily existence; and there seemed to be no method of convincing him to the contrary; for,

in fact, he was not sensible of anything done to his body unless he saw the action: feeling was quite absent. Whether this affection arose from an impression first received on his mind, or on his body, it is difficult to discover; but it is certain that such maladies are sometimes cured by merely convincing the mind of its mistake" (34:204).

Speaking of the power of the mind to produce sensation as related to feeling, Dr. Tuke observes: "We have seen that a vivid idea, definitely directed to a certain locality, may, without generating any emotion, induce a sensation. We have adduced the experience of John Hunter. 'I am confident,' he said, 'that I can fix my attention to any part until I have a sensation in that part'; words which ought to be inscribed in letters of gold over the entrance of a Hospital for the Cure of Disease by Psychopathy. Hunter's confident assertion is the more interesting because, drawn from his own experience, it shows that the principle is not confined in its operation to the susceptible and nervous, but operates even on men of the highest mental endowments. And if calm, unimpassioned thought can thus affect sensation, how much more profoundly will an intense emotion, as Fear or Joy?" (6:156).

The following from the same author shows that the sensation produced at will may be of a painful nature: "The influence of Volition on common sensation is illustrated by the following case: A distinguished physician in the province of Anders is able to produce at any time of the day, in any part of the body, by his Will, a more or less severe pain, variable in intensity, and the ease of inducing it, according to the part of the body. In the joints the pain irradiates to every part of the limb below; in the cervical region to the whole head; in the back there is a sense of constriction in the chest; if in the loins, there is pain in the abdomen. It is, however, in the palms of the hands that these effects of the

Will in inducing sensation are best marked. Elsewhere the pain disappears whenever the Will producing it ceases to be exerted, but in the hands the pain persists for a long time and even smarts severely, and he can only escape it by a powerful distraction of mind. It must be added that during the time the doctor induces this pain in a part of his body, the pulsation of the vessels is sensibly increased in the locality" (6:364).

Moreover, if the attention be centred upon the sensation it is greatly intensified. Says Romberg: "If the imagination dwells upon the sensation, the latter becomes more intense and more defined; the power of imagination may create sensations, as proved by the feeling of nausea or prurigo, and a morbid condition termed hypochondriasis" (29:vol. 1, 6).

On the other hand, as we should naturally expect if the attention is diverted from the sensation it is correspondingly weakened. For instance, Dr. Hall asserts: "A more acute pain will frequently obliterate another before existing, though the causes of the latter are still actively present. Or, when suffering under severe bodily pain, if the mind be suddenly drawn away to some train of thought or moral feeling, the physical sensations will often totally cease; renewed only when the objects and direction of consciousness are again changed" (20:57-8).

This statement is both corroborated and proved in the following passage from Dr. Tuke: "The distraction of the attention from impressions made upon the sensory nerves, whether painful or pleasurable, when the mind is under the influence of powerful Emotions, notoriously interferes with or entirely prevents the mind's perception of them: this principle forms the foundation of a large class of cases of psychical anæsthesia. Rapt in ecstasy, the devotee feels neither cold nor wounds. In those cases of hypnotism in which anæsthesia, but not complete sleep, is induced, the immunity from pain arises from the occupation of the thoughts or ideas in

another direction. Of course, in those cases in which there is profound slumber, the insensibility is not due to the same principle, although the sleep may have been originally produced by mental influences. Mr. Braid found that if a patient *expected* an operation, his suggestions and his endeavor to absorb the mind in another subject were apt to prove unsuccessful. This, however, does not necessarily involve emotional excitement, though it is, no doubt, often present.

“The battle-field constantly affords examples of the influence of an engrossing emotion in blunting sensation. In reporting the battle of Monte Rotundo (1867), a spectator writes in the *Cornhill Magazine*: ‘All day long the battle raged; the troops were fainting with hunger and fatigue. Certainly they were the liveliest, most patient set of sufferers I ever saw; *the certainty of victory chloroformed their pain*’ ” (6:163-4).

Another interesting example of this kind is related by Dr. Carpenter. Says he: “Some of Robert Hall’s most eloquent discourses were poured forth whilst he was suffering under a bodily disorder which caused him to roll in agony on the floor when he descended from the pulpit; yet he was entirely unconscious of the irritation of his nerves by the calculus which shot forth its jagged points through the whole substance of his kidney, so long as his soul continued to be ‘possessed’ by the great subjects on which a powerful effort of his Will originally fixed it” (30:138).

The following, too, by Dr. Moore is to the same effect: “Many diseases are produced, increased, and perpetuated by the attention being directed to the disordered part; but employment which diverts the attention from disease often cures it. Every one who has had a tooth drawn knows the charm of expecting the final agony; a sight of the operator or the instruments has put the pain to flight. The celebrated metaphysician, Kant, was able to forget the pain of gout by a voluntary effort

of thought, but it always caused a dangerous rush of blood to the head" (34:191).

The cases just mentioned illustrate the power of certain mental states to alleviate pain when present. Says Dr. Carpenter: "Before the introduction of Chloroform, patients sometimes went through severe operations without giving any sign of pain, and afterwards declared that they *felt none*; having concentrated their thoughts, by a powerful effort of abstraction, on some subject which held them engaged throughout" (30:138).

We will now cite cases to show how, by diverting the attention, it may be prevented in part or altogether, taking for our first illustration the following by Dr. Tuke: "It is unnecessary . . . to do more than to refer in illustration to the notorious fact that the expectation of the pain of an actual blow on any part of the body greatly intensifies it. It is, in short, the converse of the other truth that pain is not felt, or only slightly felt, when the Attention is directed in a different channel. . . .

"Insensibility to bodily pain, artificially induced, without drugs and solely by psychical means, is a most interesting and important fact. . . .

"The simplest example of anæsthesia due to intellectual condition occurs when the Attention is so powerfully arrested in a certain channel that the application of a painful stimulus to the body is not observed. The writer was on one occasion about to have a tooth extracted under the influence of laughing gas, when, in consequence of an unlooked for contretemps, the dentist was unable to administer it. The extraction was therefore performed without it, but the operation was rendered almost painless by the writer vividly imagining pleasant ideas, and mentally repeating to himself, 'How delightful! how delightful!'" (6:58).

This, too, by Dr. Cooke is even more remarkable: "A delicate lady was suffering from a tumor of the breast

of great magnitude. When she first consulted the writer, she shrank from all idea of an operation; palliative measures were employed, but disease advanced, strength failed, and death appeared near. The inherent recoil from death led the patient now to express her willingness to endure an operation. The husband expressed reluctance to give consent unless she would submit to the use of ether, but her answer was, 'I should dread that as much as the operation, for if there is any danger, I can not endure the thought of having my mind confused.' Her friend and minister pressed mesmerism on her, but this she scornfully rejected, adding in reference to both, 'I have been accustomed to trust in God, and having now made up my mind to the operation, I shall cast myself on divine support.' She did this, and weak and delicate as she was she endured the removal of a mass nearly five pounds in weight with a patience that would have secured great credit for mesmerism had it been employed" (15:38).

Moreover, the following statement and example by Dr. Laycock are equally appropriate in this connection: "If the attention be concentrated in one set of nerves, others are in a state analogous to paralysis. Marine, an Italian poet, while revising his poem, 'Adonis,' experienced this paralysis so remarkably that he burnt his leg before he was aware. How often when absorbed in thought do loud sounds fall on the ear unnoticed" (19:110).

Another case of this kind, but even more remarkable, appeared in the *Journal of a Naturalist* and "was fully confirmed by Mr. Richard Smith, the late senior Surgeon of the Bristol Infirmary, under whose care the sufferer had been." It runs as follows: "A traveling man one winter's evening laid himself down upon the platform of a lime-kiln, placing his feet, probably numbed with cold, upon the heap of stones newly put on to burn through the night. Sleep overcame him in

this situation; the fire gradually rising and increasing until it ignited the stones upon which his feet were placed. Lulled by the warmth, the man slept on; the fire increased until it burned one foot (which probably was extended over a vent-hole) and part of the leg above the ankle entirely off, consuming that part so effectually that a cinder-like fragment was alone remaining,—and still the wretch slept on! and in this state was found by the kiln-man in the morning. Insensible to any pain, and ignorant of his misfortune, he attempted to rise and pursue his journey; but missing his shoe, requested to have it found; and when he was raised, putting his burnt limb to the ground to support his body, the extremity of his leg-bone, the tibia, crumbled into fragments, having been calcined into lime. Still he expressed no sense of pain, and probably experienced none, from the gradual operation of the fire, and his own torpidity during the hours his foot was consuming. This poor drover survived his misfortunes in the hospital about a fortnight; but the fire having extended to other parts of his body, recovery was hopeless” (30:172).

Other very striking illustrations are to be found in the martyrs. Commenting on cases of this kind Dr. Carpenter observes: “Many a martyr has suffered at the stake with a calm serenity that he declared himself to have no difficulty in maintaining; his entranced attention being so *engrossed* by the beatific visions which presented themselves to his enraptured gaze that the burning of his body *gave him no pain whatever*” (30:138).

Says Dr. Moore: “The history of martyrdom supplies a multitude of instances which convincingly demonstrate the dominion of the soul over the body. . . . Lambert, when consuming in a slow fire by order of the bigoted and cruel Henry, cried in his torments and in his death, ‘None but Christ, none but Christ!’ Cranmer, when repenting of the weakness that induced him to sub-

scribe to papal doctrines, held his hand unflinchingly in the flames until entirely consumed, calling aloud, 'This hand has offended, this hand has offended!' . . .

"Mr. Hawkes, also, being entreated by his friends to give them some token that the fire was not so intolerable but that a man might keep his mind quiet and patient, assented; and, if so, he promised that he would lift his hands above his head before he died. An eyewitness states that at the stake he mildly addressed himself to the flames, and when his speech was taken away, and his skin drawn altogether and his fingers consumed so that all thought him dead, he, in remembrance of his promise, suddenly lifted up his burning hands and clapped them together three times, as if in great joy. James Bainham, also, having half his arms and legs consumed, spake these words: 'Ye look for miracles! Here, now, ye may see one. This fire is a bed of roses to me.' " (34:265-7).

The following statement and examples regarding the early Christian martyrs are from *Outlines of Ecclesiastical History*, by Rev. Charles A. Goodrich: "In order to make them recant and abandon their profession, the most cruel tortures were inflicted. The inhuman ruler commanded them to be scourged with whips, to be scorched by applying heated brazen plates to the most tender parts of the body. To prepare them for a renewal of such barbarous treatment, they were remanded to prison, and again brought forth, some to a repetition of similar cruelties; others to die under the hands of their persecutors. Various were the ways in which the martyrs were put to death; some were thrown to the beasts, others roasted in an iron chain, and many were beheaded (43:82-3).

"Amidst the numberless melancholy apostasies which are recorded of these times, and which were deeply wounding to the cause of Christianity; there were those, also, who rendered themselves illustrious by their steady

adherence to the faith, even amid the pains of martyrdom.

“Such an example is presented in Pionius, a presbyter of the Church in Smyrna. . . . His executioner having gotten ready the materials for the martyrdom, Pionius stretched himself upon the stake, to which he was nailed by the soldier. ‘Change your mind (said the executioner) and the nails shall be taken out again.’ ‘I have felt them,’ said the martyr; and then, after a few moments’ thought, added, ‘O Lord, I hasten.’

“The stake was then raised up with the martyr fixed to it, and placed in the socket prepared for it, and the fire was lighted. For some time Pionius remained motionless—his eyes shut and his spirit evidently in holy converse with God. At length, opening his eyes, with a cheerful countenance, he said, ‘Amen—Lord, receive my soul’ (43:89-90). . . .

“At *Rome* the first person of official distinction who suffered in pursuance of Valerian’s orders was Sixtus, the bishop of that city. On his way to execution he was followed by Laurentius, his chief deacon; who weeping, said, ‘Whither goest thou, father, without thy son?’ To which Sixtus replied, ‘You shall follow me in three days.’

“The prophecy of Sixtus was fulfilled. After the death of the bishop, the Roman prefect, moved by an idle report of the great riches of the Church, sent for Laurentius, and ordered him to deliver them up. ‘Give me time,’ said Laurentius, ‘to set things in order, and I will render an account.’

“Three days were granted for the purpose, during which the deacon gathered together all the poor who were supported by the Church, and going to the prefect, invited him to go and behold a large court full of golden vessels. The magistrate followed; but seeing all the poor people, he turned upon Laurentius with a look of indignation. ‘Why are you displeased?’ demanded the

martyr. 'The treasure which you so eagerly desire is but a contemptible mineral dug from the earth;—these poor people are the true gold, these are the treasures I promised you—make the riches subserve the best interests of Rome, of the emperor, and of yourself.'

"'Do you mock me?' demanded the prefect. 'I know you value yourself for contemning death; and, therefore, it shall be lingering and painful.' He then caused him to be stripped and fastened to a gridiron, upon which he was broiled to death. The fortitude of the martyr, however, was invincible. When he had continued a considerable time on one side, he said, 'Let me be turned, I am sufficiently broiled on one side.' Being turned, he exclaimed, 'It is enough, you may serve me up.' Then lifting up his eyes to heaven, he prayed for the conversion of Rome, and expired" (43:96-7).

There is, however, another class of cases which partakes of the nature of self-hypnotization. Take, for instance, the following example of "imaginary or psychological anæsthesia" related by Mr. Woodhouse Braine, connected with the Charing Cross Hospital: "During the year 1862 I was called upon," says he, "to give chloroform to a very nervous and highly hysterical girl who was about to have two sebaceous tumors of the scalp removed. On going into the operating theatre, it was found that the bottle containing the chloroform had been removed to the dispensary, and on testing the Snow's inhaler which at that time I was in the habit of using, I found it to be quite devoid of even any smell of chloroform. Then, having sent for the bottle, in order to accustom the girl to the face-piece, I applied it to her face and she at once began to breathe rapidly through it. When she had done this for about half a minute she said, 'Oh, I feel it, I feel I am going off,' and as the chloroform bottle had not arrived, she was told to go on breathing quietly. At this time her hand, which had been resting across her chest, slipped down

by her side, and as she did not replace it, I thought I would pinch her arm gently to see the amount of discomfort her hysterical state would induce her to bear. She did not notice a gentle pinch, and so I pinched her harder, and then as hard as I could, and to my surprise I found that she did not seem to feel at all. Finding this was the case I asked the operator to begin, and he incised one of the tumors, and then, as the cyst was only slightly adherent, pulled it away. At this time I had removed the face-piece, and wishing to see the effect of her imagination, I said to the operator, who was going to remove the second tumor, 'wait a minute, she seems to be coming round.' Instantly her respiration, which had been quite quiet, altered in character, becoming rapid, as when I first applied the inhaler, and she commenced moving her arms about. I then reapplied the face-piece and her breathing again became quiet and she submitted to the second operation without moving a muscle, and when the water dressing and bandages were applied, in answer to the question as to whether she had felt anything, she said, 'No, I was quite unconscious of all that was done,' and to the time she left the hospital she firmly believed in the potency of the anæsthetic which had been administered" (6:59-60).

Cases like this go to show that it is not remarkable strength of mind or an act of will by the hypnotist that hypnotizes another, but rather concentration of thought and expectation on the part of the person hypnotized. Moreover, there are persons who can effect this voluntarily and thereby render themselves insensible to pain at will. Says Dr. Moore: "In the practice of abstraction, such as it is, the devotees of Buddhism far excel our philosophers. It is indeed the highest attainment of that superstition for persons so far to abstract themselves as to become unconscious of all external existence. Thus, we find individuals among them habitually sub-

mitting, with the most profound composure, to afflictions and influences which, to ordinary mortals, would induce the most terrible torment; but they really do not feel them, because they determine not to feel.

"The Fakirs invert their eyes in silent contemplation on the ceiling, then, gradually looking down, they fix both eyes, squinting at the tip of the nose, until, as they say, the blessings of a new light beam upon them. The monks of Mount Athos were accustomed, in a manner equally ridiculous and with the same success, to hold converse, as they fancied, with the Deity. Allatius thus describes the directions for securing the celestial joys of Omphalopsychian contemplation:—'Press thy beard upon thy breast, turn thine eyes and thoughts upon the middle of thine abdomen; persevere for days and nights, and thou shalt know uninterrupted joys, when thy spirit shall have found out thy heart and illuminated itself.' St. Augustine mentions a priest who could, at will, fall into these ecstasies, in which his senses were so forsaken by his soul that he did not experience the pangs of the torture" (34:104-5).

The following remarks concerning Cardan, who declared that "it runs in a blood among the Turks for persons to cast themselves into an ecstasy at pleasure" (24:87), are from the same author: "Cardan must have been subject to some singular disease, for he says, 'Whenever I wish it, I can go out of my body so as to feel no sensation whatever, as if I were in ecstasy. When I enter this state, or, more properly speaking, when I plunge myself into ecstasy, I feel my soul issuing out of my heart, and, as it were, quitting it, as well as the rest of my body, through a small aperture formed at first in the head and particularly in the cerebellum. This aperture, which runs down the spinal column, can only be kept open by great effort. In this situation I feel nothing but the bare consciousness of existing out of my own body, from which I am distinctly separated.

But I cannot remain in this state more than a very few moments' ” (34:197-8).

Perhaps, however, the most noted examples of this type are to be found in the Convulsionists of St. Médard. Dr. Tuke observes: “The *Convulsionnaires* of St. Médard in 1731 serve as examples of anæsthesia. As numbers of these persons were thrown into this peculiar condition by causes known to be directly and purely mental, they admit of separation from cases of hysteria of vague or unknown origin, and may therefore be fairly employed as illustrations of the influence of emotional excitement upon the sensibility of the body. They were usually complicated with disorder of the motor system, especially a spasmodic condition of the muscles.

“The work of Carré de Montgeron, *La Verité des Miracles*, contains the most astonishing recitals of the blows to which the convulsionnaires were subjected at their own desire, without pain, and, according to this author, without any visible effect. Calmeil, however, observes that ‘many of these fanatics deceived themselves greatly in imagining themselves to be invulnerable, for there has been scores of times undeniable proof given that many amongst them showed, after the cruel infliction of blows which they solicited, large patches of discoloration under the skin, and innumerable contusions on the surface, which had borne the most severe assaults.’

“In the case of the *convulsionnaire* Nisette, ‘She was struck on the head with a log, then with four logs, and then had the four members pulled in different directions. . . . At length two men stood on her body; then one man stood on her back; two others dragged up her arms, and gave her the *strapado*. They pulled her arms and legs, one person being on her stomach; they suspended her by the feet; then balanced her by the arms and legs, a man being on her back; then they turned her round like a spit; then again dragged her

by the four members, two persons also pulling from below the shoulders. This pulling continued for a long time, because there were only six persons to pull (!) After that, they again gave her the *strapado* and the ordinary *sape à la muraille*; then they trod her under foot, fifteen persons at a time.'

"The insensibility to pain in these cases appears to have been complete. The slight extent to which the internal organs suffered seems to be best explained by the extreme rigidity of the muscles, which was a marked feature of the phenomena—a rigidity so frequently produced with great ease by hypnotic manipulations" (6:162-3).

"The impression of an injury," says Dr. Moore, "is not perceived until the mind voluntarily acts upon the part affected, or until the attention is withdrawn from whatever may at the time happen to engross it. This circumstance affords a positive proof that sensation and sensibility are mental states or mental cognitions of bodily impression.

"But *sensation* is modified both by the condition of the body and by the state of the mind with regard to it. Thus we find that, in the peculiar condition of mind and body attending mesmeric sleep (according to the testimony of honest witnesses, whom I the more readily believe from what I have seen), persons may have their limbs removed without pain, and the exposed extremities of the divided nerves being roughly handled, causes only a sense of titillation, under which the patient laughs like a tickled child. Pain, indeed, is but the excess of an impression which, in a milder form, is pleasure; and the same degree of impression is either one or the other, according to the state of attention at the time, or according to the association of the mind. In many respects, pain is really an acquired feeling, like fear, and it arises from the mind being taught to associate certain sensations with the idea of

danger. Thus when the Esquimaux first had razors given to them, they used to gash their tongues for the pleasure of the new sensation of being cut with so keen an instrument; but after they learned there was danger in such wounds, they never cut themselves without an expression of pain" (33:48).

Likewise, Prof. Dubois, commenting on the cause of pain, observes: "Properly speaking, there is no physical suffering; it is always psychic, even when it results from a traumatism or anatomical lesion. We suffer in our sentient ego; these are the facts of consciousness interpolated everywhere, and that is why the rôle of psychotherapy, properly understood, is so large" (31:455).

Speaking of "psychical anæsthetics," Dr. Tuke remarks: "Dr. Esdaile, in his *Introduction of Mesmerism (with the sanction of the Government) into the Public Hospitals of India*, . . . records 261 operations performed by him in the hospitals of Hooghly and Calcutta, rendered painless by mesmerism. Of these 200 consisted of the removal of large tumors from 10 pounds to 103 pounds in weight. In a hospital called the Subscription Hospital, there had also been eighty-four capital operations performed under the same influence. In addition to these 345 operations smaller ones were performed, as teeth extraction, application of nitric acid to large wounds, abscesses opened, etc. . . .

"The Marquis of Dalhousie wrote in 1856, June 27, in reference to Esdaile's psychical anæsthetic: 'Of the efficacy of it in surgical cases I am able to speak with confidence. Dr. Esdaile undoubtedly did possess the faculty of so influencing the sensations of natives of India by means of mesmerism as to reduce them to a state of insensibility not less complete than that which is now produced by the use of chloroform. While they were in that state of insensibility he performed upon them surgical operations of every kind; many of them tremendous in their magnitude, duration and severity.

Those operations were performed without any apparent consciousness in the patient, without pain to him, and usually with great success.' . . .

"It is a remarkable fact that in all, or nearly all, histories of anæsthetics, *psychical* anæsthetics are not even mentioned. Yet they preceded drug-anæsthesia, and to a large extent suggested it" (6:61-63).

II. HEALING AS RELATED TO DISORDERS OF THE MUSCLES AND OF THE ORGANIC FUNCTIONS

More than half a century ago John Hunter laid down the following laws which form the foundation of all Mental or Psychic Healing:

"There is not a natural action in the Body, whether involuntary or voluntary, that may not be influenced by the peculiar state of the mind at the time (6:1 Preface). . . .

"Every part of the body sympathizes with the mind, for whatever affects the mind, the body is affected in proportion" (6:98).

A decade or so later Dr. Cooke expressed the effects of the mind upon the body as a cause and cure of disease in these words:

"It will be seen in the sequel that all the vicious emotions have a tendency to injure the functions of the body, and that the virtuous have a contrary tendency; so that we do well to know how to banish the one and to cherish the other (15:21). . . .

"The malevolent emotions all tend to our injury—the Christian religion thoroughly embraced represses them; the benevolent emotions sustain health, and open to us some of the most exalted pleasures—it develops them" (15:44-5).

Likewise, later still, Dr. Tuke stated this same idea concisely as follows:

"It may, doubtless, be laid down as a general prin-

ciple that pleasurable emotions increase the activity of the vital functions, and painful ones depress them" (6:268).

This topic we shall present under seven heads, each expressing a prominent characteristic of the mind through which the healing takes place. Moreover, we shall begin each sub-topic with one or more statements, exemplified or made plain in the illustrations which follow, while, in every instance, both statements and illustrations are composed of quotations or extracts alone.

1. Attention to an Organ or Part

STATEMENTS

Ideation, under certain circumstances, is, in its influence on the sensorium, as powerful as anything in the outer world (6:49).

Ideas exert much more power over the organic functions when directed towards them (6:133).

ILLUSTRATIONS

Of the following case Mr. B. himself informed me: A lady who was leaving off nursing from defect of milk, the baby being thirteen months old, was hypnotized by him. He made passes over the right breast to call her attention to it, and in a few moments her gestures showed that she dreamt the baby was sucking. In two minutes the breast was distended with milk. She was awake, and on being questioned whether any part of her frame felt differently from the rest she perceived the state of her bosom and mentioned it, to which Mr. B. replied that the baby would soon settle that. The infant was nearly choked with the rush of milk. In three days she came back to Mr. B. and complained that he had disfigured her, for she was protuberant on one side. He promised to take the swelling down; hypnotized her, but

drew the other side also by the like means, and she nursed her child from an overflowing bosom for twenty-two months, being nine after the hypnotism (9:475).

A gentleman, somewhat hypochondriacal, required a daily aperient, being costive from sedentary pursuits. When medicine lost its effect, he applied to a medical man for advice, who, seating his patient before him with the abdomen uncovered, requested him to direct his attention exclusively to the sensations he experienced in that region, acting upon his Expectation by assuring him that the desired action of the bowels would be secured, and pointing with his finger along the course of the arch of the colon and small intestines, so that his current of thought might pursue that direction. The experiment very shortly succeeded, "and, for some time after, the bowels continued to act freely without medicine" (6:431).

The efficacy of an ideal purgative in exciting the peristaltic action of the intestines is well illustrated in the following case: . . .

"Dr. S—— all his life had the greatest horror of taking medicine, although fully admitting the beneficial and necessary effects of it, and constantly prescribing it judiciously for others; he consequently never took it. After a certain period of life, however, he began to experience a torpidity of the bowels and all the consequent uneasiness, rendering it apparent to himself that relief could only be obtained by the means he prescribed to his patients, namely, the taking of medicine. After due deliberation, accordingly, and conflict with himself, he decided upon taking some, and imagining that an ordinary dose of salts would answer all the purpose, and be less nauseous than most others, he carefully mixed one, and laid it by his bedside at night to be taken in the morning when he first woke. The proximity of it, however, and the impression on his mind of the horrible dose which awaited his first waking, banished sleep from

his eyes and kept it continually before him. At length, however, he did sleep, and even the vision did not leave him, but, like the haunting phantom of the roasting pig to the slumbering glutton, it assumed various guises and positions to his mind, the difference alone being that his was more purely imaginary, as he had not swallowed the cause of the mental disturbance, which the other had, but suffered from the anticipation. At length, however, he awoke, and so far from requiring the prepared medicine found all occasion for it removed by an effort of nature, and from that time he declares he has nothing to do when suffering from torpid bowels but to lay a dose by his bedside at night, and that it as effectually acts as if he had swallowed it" (6:127-8).

2. Joy or Delight

STATEMENTS

When our desires are gratified there results mental pleasure—Joy. When, on the contrary, they are disappointed, there arises mental pain—Grief or Sorrow. Such are emotions as regards their quality, but they vary also in their quantitative character. Again, they may be manifested in very different degrees of intensity and force from the slight ripple to the resistless wave; and, lastly, they may differ in their persistence. It is obvious that, as these characters vary, the influence of the emotion upon the body will be modified (6:142-3).

As the state of the mind is capable of producing a disease another state of it may effect a cure (1: vol. 1, 144).

ILLUSTRATIONS

Dr. Brierre de Boismont adds to a case illustrative of mental action upon the liver and stomach one which similarly illustrates the effect produced upon the motor system:

“A little peasant girl, Lucia Marini, eight years old, was separated for some time from her mother, a patient in the hospital. She had often begged to be taken to see her mother, but her relations, thinking it only ‘caprice,’ always refused. The child often repaired to the church to pour out her grief, and was one day found at the foot of the altar sobbing and almost deprived of consciousness. Shortly after appeared symptoms of an affection of the cerebro-spinal axis, delirium, headache and inability to stand. Leeches were applied to the head, and a seton inserted in the neck. This treatment relieved these symptoms, except the paraplegia, and on account of this she was removed to the hospital. Scarcely was she in her bed than she begged again with tears (‘caprice’) to see and embrace her mother. The doctor (kinder, as is so often the case, than the friends of the patient) immediately ordered her request to be granted. Carried in the arms of the nurse to her mother’s bed she threw herself upon her neck, covered her with tears, earnestly inquired after her health, and seemed as if she could not caress her enough. After awhile she was requested to leave her mother and return to her bed. On their attempting to carry her she sprang to her feet and cried out with delight that she had recovered the use of them. She regained her bed without effort or fatigue. During the time—about ten days—that she remained in the hospital no unfavorable symptoms returned, and she occupied herself in assiduously waiting upon her mother” (6:259-60).

Tissot records the following: A man of letters reached an advanced stage of phthisis, when he consulted a physician. At this period he happened to obtain fresh literary distinction, and was fortunate in other ways, the consequence being that he was greatly delighted. The physical effect was that his pulmonary affection was suspended and remained stationary for a long time (6:408-9).

3. Anger and Fear or a Sudden Shock

STATEMENTS

As substances most prejudicial and even poisonous to the healthy organism may exercise medicinal virtues in certain states of disease, so extreme anger, although generally baneful in its effects, has, by its powerful impulse, occasionally subdued distressing and obstinate maladies, as neuralgia, gout, agues, paralysis and various nervous affections (5:152).

Extreme terror will, in certain instances, instead of depressing and paralyzing the nervous power, arouse it into new and astonishing action. We read that it has even caused the dumb to speak, the paralytic to walk; and that the most painful and obstinate diseases have been known suddenly to yield under its potent influence (5:178).

Fear will restore the maniac to reason; cure violent seasickness, or prevent it; excite the secretion of urine after it has been long suppressed; cure paralysis in an infant, and arrest the most frightful imitative convulsions. Ague is well known by the sufferer to be a real disease, yet very often has ague been cured by fear, or disgust, or hope (19:183).

But the same Emotion does not always act in the same mode; thus, the fear of danger may nerve one man to the most daring and vigorous efforts to avert it, whilst another is rendered powerless and gives way to unavailing lamentations (30:328).

John Hunter only stated the truth of the case partially when he said: "As the state of mind is capable of producing a disease another state of it may effect a cure," if by this he meant to imply that a different kind of emotion is required to remove a disease from that which caused it, whereas the character of the mental excitor may be, and often is, the same in both instances. Fear may heal as well as cause disease. It

would therefore be more correct to say that as in health certain mental states may induce disease, so in disease certain mental states may restore health (6:379).

ILLUSTRATIONS

Dr. John Pennington, of Edinburgh, records the following: "A sailor in an ascites fell off the end of the yard into the sea; the weather being calm he was taken up unhurt, but to use the sailor's words who told me the story he was frightened half to death, and as soon as he was taken out of the water he discharged a gallon of urine or more." Dr. Pennington observes: "The sedative operation of Fear was, no doubt, the cause of the cure" (6:409).

Dr. Rush refers to the case of a young woman (nineteen years of age) who had taken the usual remedies for ascites without any benefit. Dr. Hull was consulted and immediately proposed that the operation of tapping should be performed. "To this she objected, but so great was the fear of this operation which the proposal of it suddenly excited in her mind that it brought on a plentiful discharge of urine, which in a few days perfectly removed her disease" (6:409-10).

In the following instance, related to me by Mr. Cocks . . . it becomes a question whether Fear . . . did not act simply in exciting the sudoriferous glands to excessive action. The man's fear was of an anxious, fidgety kind, which was more likely to arouse than to check the function of the glands. Such a case is full of interest and instruction.

John Ford, an officer in the Royal Navy in George III.'s time, was invalided home from the West Indies for dropsy. Twelve months afterwards he was discharged from the Naval Hospital as incurable, from which date to the time when first seen by my friend he was under the paternal medical care of a host of

ichneumons, who fed on the exchequer of his profits *secundum artem*. As to the disease, it was a matter of no moment—the longer he lived to swallow their trash the better for them. “They looked on and grinned, grinned and looked on again.” Mr. Cocks says he found him propped up in bed, at an angle of sixty degrees, with an anxious and cadaverous countenance. The room was neatly and profusely embellished, not with pictures, but with empty physic phials, pill boxes and gallipots. He had been well drugged; his system was saturated with nearly nine-tenths of the articles mentioned in the *Materia Medica*. My friend advised him to throw physic to the dogs for the present, and to submit to the only remedy (in his case) to save life, a *surgical operation*, and that as speedily as possible. This roused him from his lethargy; it was like a powerful electric shock. Alarmed he shook like a poor wretch under the influence of the cold stage of ague. In a subdued voice he said (as his excitement partially subsided): “I never can submit to an operation; I would rather die!” “If that be your determination,” it was replied, “your case may be considered hopeless; all the drugs in the world will not save you. At all events, I will visit you to-morrow morning to know your decision.” Accordingly Mr. C. called on him, but the scene was changed. Soon after his departure he appeared to be greatly distressed both in mind and body; groaned aloud, wept much, and was very restless. The word “operation” had worked wonders—in fact, a miracle. A copious *perspiration* was produced, and the steam like that from boiling water issued from every pore in the skin. The nurse said that more than two gallons of fluid had passed from him during the night. The bedding, consisting of feather bed, mattress, blankets and sacking, was saturated through and through with serum, and the floor was flooded with it. The patient recovered and was appointed to a ship in commission going to Jamaica (6:322-3).

In November, 1869, I met with the following in a newspaper under the heading of "Curative Effects of a Railway Collision":

"Allow me to confirm all that your two correspondents have related with respect to the alarming collision on the 17th instant on the Midland line.

"Nothing needs to be added either to their descriptions of the circumstances or to their just condemnation of the reckless negligence which brought us so near to death; but the shock produced so curious an effect on myself—an effect, perhaps, unparalleled in the history of railway accidents—that you will, perhaps, excuse my troubling you, with the details.

"At my hotel in Manchester on Tuesday night I was seized with all the symptoms of a violent attack of rheumatic fever; in fact, my condition so alarmed me, and my dread of a sojourn in a Manchester hotel bed for two or three months was so great, that I resolved to make a bold *sortie*, and, well wrapped up, start for London by the 3:30 P. M. Midland fast train from the London Road terminus. From the time of leaving that station to the time of the collision my heart was going at express speed; my weak body was in a profuse perspiration; flashes of pain announced that the muscular fibres were under the tyrannical control of rheumatism, and I was almost beside myself with toothache. Crash! smash! bump! and bang! and from side to side of the carriage I went like a billiard ball under a hard cushion hit. The compartment was soon seen to be sprinkled with the blood of a hapless victim whose face had come into crushing contact with it."

The rest of this part of the paper was unfortunately wanting, but I learned from other sources that, as the heading intimated, the patient was cured of his rheumatism (6:9 Preface).

Sir Benjamin Brodie records the case of a young lady who had long labored under hysterical neuralgia of the

hip and thigh, but who immediately lost all her symptoms on being thrown from a donkey which she was riding (6:385).

“A captain of a British ship of war,” says Dr. Rush, “who had been confined for several weeks to his cabin by a severe fit of the gout in his feet, was suddenly cured by hearing the cry of ‘Fire’ on board his ship. This fact was communicated to me by a gentleman who was a witness of it. Many similar cases are upon record in books of medicine. I shall in another place insert an account of one in which the cure effected by a fright *eradicated the disease from the system so completely as ever afterwards to prevent its return.*” Here is the case, communicated by Judge Rush, the doctor’s brother:

“Peter Fether, the person cured, is now alive, a householder in Reading, seventy-three years of age, a native of Germany, and a very hearty man. The first fit of the gout he ever had was about the year 1773, and from that time till 1785 he had a regular attack in the spring of every year. His feet, hands and elbows were much swollen and inflamed; the fits lasted long and were excruciating. In particular the last fit in 1785 was so severe as to induce an apprehension that it would inevitably carry him off, when he was suddenly relieved by the following accident: As he lay in a small back room adjoining the yard it happened that one of his sons, in turning a wagon and horses, drove the tongue of the wagon with such force against the window, near which the old man lay stretched on a bed, as to beat in the sash of the window and to scatter the pieces of broken glass all about him. To such a degree was he alarmed by the noise and violence that he instantly leaped out of bed, forgot that he had ever used crutches, and eagerly inquired what was the matter. His wife, hearing the uproar, ran into the room, where, to her astonishment, she found her husband on his feet, bawl-

ing against the author of the mischief with the most passionate vehemence.

"From *that* moment he has been *entirely exempt from the gout*, has never had the slightest touch of it, and now enjoys perfect health, has a good appetite and says he was never heartier in his life. . . . To you, who have been long accustomed to explore diseases, I leave the task of developing the principles on which this mysterious restoration from the lowest decrepitude and bodily wretchedness to a state of perfect health has been accomplished. I well know that toothaches, headaches, hiccoughs, etc., are often removed by the sudden impression of Fear, and that they return again. But to see a debilitated, gouty frame instantly restored to vigor; to see the whole system in a moment, as it were, undergo a perfect and entire change, and the most inveterate and incurable disease *radically* expelled is surely a different thing, and must be acknowledged a very singular and marvelous event" (6:406-7).

An officer in the Indian army was confined to his bed by asthma, and could only breathe in an erect posture; but a party of Mahrattas broke into the camp, and fearing certain death he sprung out with amazing activity, mounted his horse and used his sword with great execution, although the day before he could not draw it from its scabbard (34:227).

Terror has appeared to benefit even patients in consumption. According to Dr. Blane, a frightful hurricane in Barbadoes in 1880, had one salutary effect—that of benefiting some and curing others who labored under tubercular disease of the lungs. . . . Dr. Rush refers to the cases related by Van Swieten and Smollett of consumptive patients recovering their health from falling into cold water, and inclines to think that in both instances fright and consequent exertion produced a beneficial result (6:408).

Intermittent fevers or agues have likewise disappeared from the strong impulse of this same passion (fright). Dr. Fordyce tells of a man afflicted with a fever of this description, that his brother having led him to walk by the edge of a mill-dam pushed him suddenly into the water, and which, as he was unable to swim, naturally put him into a very great fright. He was speedily, however, taken out, and from that time forth had no further paroxysm of his disease (5:179-80).

It is related in Herodotus that during the storm of Sardis, "a Persian meeting Croesus was, through ignorance of his person, about to kill him. The king, overwhelmed by his calamity, took no care to avoid the blow or escape death; but his dumb son, when he saw the violent designs of the Persian, overcome with astonishment and terror, exclaimed aloud, 'Oh, man, do not kill Croesus!' This was the first time he had ever articulated, but he retained the faculty of speech from this event as long as he lived" (5:178).

Epileptic fits—the frequent result of a false or morbid religious excitement or enthusiasm, aided by the principle of sympathy in the feeble-minded and ignorant—may often be counteracted through the passion of fear. . . . The cure of these convulsions in the parish of Northmaven, in which they were once very frequent, is said to have been effected by a rough fellow of a kirk officer tossing a woman affected with them, and with whom he had been often troubled, into a ditch of water. She was never known to be thus affected afterwards, and the disease was kept off in others by a dread of the like treatment.

Boerhaave appears to have operated successfully with the passion of fear in the house of the poor at Haerlem in the cure of convulsions, which, through the force of imitation—a propensity so strong in our nature—had spread to almost all the boys and girls who were its inmates. All medical treatment having proved unsucces-

ful in the hands of the physicians of the place application was made to Boerhaave, who, observing the manner in which the fits spread, determined to try the effects of a remedy which would act strongly upon the imagination. He accordingly had several portable furnaces, on which were placed burning coals and iron hooks of a figure suited for his purpose, and then gave directions that as all medicines had failed, and he knew of no other remedy, the next one seized with a paroxysm, whether boy or girl, should be burnt on the naked arm with the heated iron, even to the bone. All became so much terrified at the thought of this cruel remedy that they struggled with all their might to keep off the fits, and were completely successful (5:182-4).

The old story of Boerhaave is as apposite as any other, who is said to have immediately cured several girls at school of chorea by threatening that the next who was attacked should have the actual cautery applied (3:16).

4. A Strong Impression

STATEMENTS

I may here refer to the state of mind during what is popularly termed "the nightmare." . . . In this case sleep is imperfect. We are to a certain extent aware of our situation. We know where we are, but we feel as if some power oppressed us and prevented our moving our limbs. The fact is, not that the muscles will not obey the will, but that the will itself is not exercised. The paralysis and catalepsy of hysterical patients is of the same kind, and both the one and the other immediately vanish if a strong impression be made on the senses, or even on the imagination (28:vol. 1, 139).

The nervous patient is on the path to recovery as soon as he has the conviction that he is going to be cured; he is cured on the day when he believes himself to be cured (31:210).

The old French Commission on Magnetism found . . . that they could produce convulsions by acting upon the Imagination. But more than this, they found they could by the same talisman terminate them. "To prove incontestably, and to complete the picture of the effects of the Imagination, powerful alike to agitate and to calm, we have," say they, "put an end to a convulsion by the same charm which produced it, the power of the Imagination" (6:387).

The various ways in which vomiting may be excited will serve to illustrate the influence of ideas presented in different forms. See how the causes differ. First, a man may vomit from taking an emetic, from a bad smell, or from visceral disease. With this class of cases we have nothing to do; the mind has not influenced the body. Secondly, he may vomit from receiving unpleasant intelligence. Thirdly, by seeing or hearing another person retch; from Sympathy as we say. Lastly, this effect may be induced by the belief that an emetic has been taken; from Imagination, in the ordinary sense of the term current among men (6:50).

When we imagine that we have swallowed an emetic, and the imagination excites retching and vomiting, as if an emetic had been really taken, the conclusion is obvious, that the felt external impression on the stomach of such an emetic, or its felt nerve actions, must have produced the same movement, namely, vomiting, as a sentient action of the external sensation at the irritated point, which the same external impression had excited there at the same time, as a direct nerve-action. This occurs also when purgation takes place, simply from dreaming that a purgative has been taken; when we shiver from the imagination of intense cold; when suffusion and blue marks take place at the spot where we dream that we have received a blow, pinch, etc. (18:302). . . .

Thus an insane person, or one that dreams, or any individual with vivid imagination, imagines he has swallowed an active purgative and is purged in consequence; or vomits from dreaming of taking nauseous food, etc. (18:118). . . .

It is not unusual for some persons to vomit, or be purged by only seeing a medicine (18:409).

ILLUSTRATIONS

The confident assertion that a person subject to epileptic fits will have an attack has frequently proved sufficient to produce one. Madame de St. Amour attained great reputation in France within the last half century for the power she exercised over nervous diseases. It is related that on one occasion a young woman was brought to her, when she demanded—"What is your complaint?" "Epilepsy," replied the girl. "Then, in the name of the Lord, have a fit now!" exclaimed Madame de St. Amour. The effect was instantaneous. The patient fell backwards and had a violent attack of epileptic convulsions. . . .

In like manner, in the case of the poor hystero-epileptic girl treated by Madame de St. Amour, "*Levez-vous*," said the latter, "*vous êtes guérie*," and the fit subsided (6:100-1, 388).

Every practitioner is familiar with hysterical contraction of the fingers. A young woman's fingers are firmly flexed upon the palm, and obstinately resist any attempt to extend them. All the orthodox pharmaceutical means may be employed and fail, even if, its true nature being recognized, it is not confounded with the effects of inflammation of the tendons or their thecæ, or of organic cerebral disease; and yet a cure may be performed in a few minutes by what is ordinarily understood by the Imagination, by a sudden thrill of Hope or

Faith which masters the tonic spasm and sets the fingers free. Dr. Bertrand knew a woman whose hand for thirty-eight years had been closed as firmly as the fist of a boxer and could only be opened by very considerable force; yet her hand, to his knowledge, opened in response to the appeal of Madame de St. Amour. Whether it relapsed eventually into its former condition is not stated, but for three days at least it remained relaxed and as serviceable as the other. It is in regard to such cases (whether hysterical or the remains of old disease) that Burton's pithy observation is but too true: "An empirick oftentimes, or a silly chirurgeon, doth more strange cures than a rational physician. Nymanus gives a reason—because the patient puts his confidence in him, which Avicenna prefers before art, precepts and all remedies whatsoever. 'Tis opinion alone (saith Cardan) that makes or mars physicians; and he doth the best cures, according to Hippocrates, in whom most trust'" (6:388-9).

A young girl came into my service, having suffered from complete nervous aphonia for nearly four weeks. After making sure of the diagnosis I told my students that nervous aphonia sometimes yielded instantly to electricity, which might act simply by its suggestive influence. I sent for the induction apparatus. Before using it I wanted to try simple suggestion by affirmation. I applied my hand over the larynx and moved it a little and said, "Now you can speak aloud." In an instant I made her say "a," then "b," then "Maria." She continued to speak distinctly; the aphonia had disappeared (17:198).

Dr. Bouchut states that in 1849 a little girl, Louise Parguin, whom excessive Fear had rendered dumb and paralytic in all her limbs, was brought to him. "For two months everything had been done by the physicians, but to no purpose. In despair her father came

with his child to Paris. The girl, who had heard of the great city, its great physicians and the Hotel Dieu, spoken of only in the most extravagant way, arrived full of faith to be cured. In the evening I saw her dumb and paralytic; and, displeased at finding such a patient in the hospital, made no prescription. She was in the same state the next morning; I put off all treatment during the day. During the day she began to speak, the day after to move her limbs, and on the third day she walked about the wards completely cured. Her faith had saved her" (6:390).

For the last four or five years there has resided in my neighborhood a lady of 45, bedridden, apparently unable to stand up, or to get off her bed without being lifted to a chair and back to the bed. The cause assigned was a post-partum hemorrhage, which nearly proved fatal, and from which she very slowly recovered, regaining her health and usual appearance only at the end of over a year.

About eighteen months ago, while attending her mother in a case of bilious remittent fever, her husband asked me to have a talk with her. She consented for me to examine her, which I carefully did, and I expressed the opinion that there was no apparent reason why she should not be able to stand alone and walk, although the bottoms of her feet were as delicate as those of an infant.

She had lain so long on her back that her head had the appearance of being artificially flattened. In fact, she had made no effort to move herself or to stand, even supported, on her feet for over four years. To all appearance she was as fat and healthy as any woman of her age, well developed, and the body and limbs finely proportioned, with no atrophy perceptible.

Well, on the 24th of December, 1896, she remarked to her husband when she woke up in the morning: "I

have dreamed that I can walk, and I'm going to try." Suiting the action to the words she rolled out, put her feet on the floor and with very little help walked to the fireplace and sat down on a chair.

Except for the very tender condition of the soles of her feet she could now walk as well and as long as she ever could, and has not laid down during the day since she got up that morning. She sits in a chair, resting her feet on another, when not walking about.

The case has excited considerable comment, and had there been any "faith doctors" in the neighborhood it would have been one of their miracles. As it is it is a curious case (to my mind) of hysteria, similar to some noted in Charcote's work on nervous diseases. These are the facts in the case, whatever may be the cause or theory relative thereto (44:22-3).

Mme. W——, after an altercation with her cook, was seized with paraplegia. I found the patient in bed, very much disturbed by what had happened. Her legs were in tetany when stretched out, and the patient was incapable of making the slightest movement. Sensibility to a prick ceased over the whole cutaneous surface of the lower extremities, and the anesthesia ceased suddenly at the fold of the groin.

While I made the examination the patient asked me: "Is it serious? Shall I have to stay a long time in bed?"

"Serious! Not in the least; it is only a nervous weakness brought on by emotion. In three days you will be on your feet!"

Then, taking her relatives to one side, I took care to say to them: "You have heard that I have said she will be cured in three days; I could have said three weeks, three months, or more, for I have seen these paraplegias last for years. It all depends upon the idea that the patient gets into her head. Take care, then, to take it for granted that the patient will be cured

within the fixed time. Do not make believe to believe it; that will not do; believe it—all of you believe it!”

Without any other treatment the patient was cured and walked on the third day (31:375).

The rejection of the contents of the stomach from a purely mental state is well exemplified in an experiment made upon one hundred patients in a hospital, and reported by Dr. Durand (de Gros) in his able work *Essais de Physiologie Philosophique*. The house surgeon administered to them such inert draughts as sugared water; then, full of alarm, he pretended to have made a mistake in inadvertently giving them an emetic, instead of syrup of gum. The result may easily be anticipated by those who can estimate the influence of Imagination. *No fewer than eighty—four-fifths—were unmistakably sick.* How many of the rest suffered from nausea is not stated (6:126).

Van Swieten says: “I have seen a man who had taken a sufficiently nauseating draught, not only shudder and be nauseated, but also be frequently purged, when he merely saw the cup in which he had taken the medicine” (6:127).

In the *Bibliothèque choisie de Médecine* . . . is a good example of the effect produced by the Imagination, during sleep, upon the action of the intestines. The daughter of the Hanoverian Consul, aged eighteen, having to take a rhubarb purge on the following day, which she especially disliked, dreamed that she had taken the hated dose. Gripped by her imaginary rhubarb she awoke, and the bowels acted freely five or six times. Precisely similar is a case which I give on the same authority (Demangeon); that of a monk for whom some purgative had been prepared, to be taken on the following day. He dreamed that he swallowed the medicine, the consequence of which was that he was aroused by the necessity of attending to the calls of nature, and was copiously purged eight times (6:402-3).

5. *Courage or Fearlessness*

STATEMENTS

True courage is a most desirable quality of mind; it is promotive of health and happiness and essential to, and by the Greeks and Romans was used synonymously with virtue (5:170).

A bold, intrepid spirit may justly be ranked among the conditions which secure to the constitution its full measure of physical power (5:218).

ILLUSTRATIONS

The depressing agency of fear is well known to augment the susceptibility of the constitution to disease; and especially to the action of contagion and epidemic influences. It was observed by an old and distinguished medical writer (Willis) that they who have the greatest fear of small-pox are generally the first to be attacked by it. Hecker, in his history of the Black Death, a malignant and widespreading epidemic of the fourteenth century, says that many fell victims to fear on the first appearance of the distemper. . . . The cholera is well known during its epidemic prevalence to have been often induced in timid people through their strong apprehension of it (5:218-9).

A good example of spasm of the eyelids of mental origin is recorded by Dr. Weir Mitchell. It occurred in a lady, shy from childhood, blushing easily, and excessively embarrassed by the presence of strangers. "The trouble of her eyes came on for the first time at a watering-place. When going to dinner and sitting down she observed that a great number of persons were looking at her as a last arrival. She mentioned the fact to her husband and was almost immediately attacked by a violent closure of the eyes, and was obliged to be led in this condition from the table. When this had happened

once you may well imagine that every repetition of the original cause brought back a return of the disorder, until at last it was quite impossible for her to go to table in the room with other people. You will see that in this case Emotion and, after the establishment of the symptoms, the despotic control of an unpleasant memory were competent to create and then to continue this grave inconvenience. I succeeded in inducing her, however, to make an effort to go to dinner without regard to what had happened, and to face the slight unpleasantness and the talk which her appearance might create. Her courage was finally rewarded by a cure which was perfected, so to speak, by a long absence in Europe, and constant exposure to the very difficulties which had given rise to her first attack" (6:224).

6. Mental Energy or Positiveness

STATEMENTS

Distinctness of object and purpose is essential to health of mind, and for the preservation of that orderly action of the nervous system without which we are diseased in body also. Every faculty and function, therefore, requires its appropriate exercise, for inaction is scarcely more liable to be followed by a morbid train of misery than is disappointed or distracted activity (34:205).

The triumph of man over pain and difficulty is always achieved by fixing his desire upon the attainment of some prize (34:263).

Those who are depressed by any cause are most likely to take contagious diseases (34:238).

ILLUSTRATIONS

Captain Ross, in the narrative of his Arctic voyage, particularly alludes to the circumstance of mental depression increasing susceptibility to cold. The disas-

trous retreat from Moscow also affords a striking and extensive instance (34:238).

Stirring political events, demanding individual action, have a wonderful influence over nervous affections. This fact was exhibited in the first American war. Dr. Rush, after stating that many whose habits were infirm and delicate, were restored to perfect health by the change of place or occupation to which the war exposed them, adds: "This was the case in a more especial manner with hysterical women, who were much interested in the successful issue of the contest. The same effects of a civil war upon the hysteria were observed by Dr. Cullen in Scotland in 1745-6. It may, perhaps, help to extend our ideas of the influence of the passions upon diseases to add that when either love, jealousy, grief, or even devotion, wholly engrosses the female mind, it seldom fails, in like manner, to cure or to suspend hysterical complaints" (6:386).

Many interesting observations were made by Dr. Rush on the "Bilious Yellow Fever" which raged in Philadelphia in 1783. . . . Attendants upon the sick in this fever were observed to be themselves materially influenced by the prospect of the patient's recovery. So long as there was hope they often escaped. But when hope was extinguished they were frequently attacked by the disease—most of the near relations of the deceased falling victims to it. On the other hand, an opposite state of mind to that of Grief also produced the disease, or rather rendered persons more liable to it. For after nursing a relative who recovered many became affected in a few days, notwithstanding their joy, in consequence, no doubt, of mental collapse. Their hopes were fulfilled, attention upon an object external to themselves was no longer required, and a general relaxation of the energies followed, only too favorable to the invasion of fever. Dr. Jackson, in his *Treatise on the Fevers of Jamaica*, states that the garrisons of Savannah and

Yorktown remained healthy so long as those towns were besieged, while Savannah became affected when the French and American armies retreated from it, and Yorktown when it capitulated. In both instances the mental tone of the inhabitants ceased to be wholesomely maintained; Joy in the former did not prevent the deleterious influence of the reaction, and Grief or Disappointment in the latter produced their natural fruits. So complex are psychical causes that opposite events will occasion the same results, but when analyzed there is no real inconsistency in their operation, and they fall under well-understood psychological laws (6:337-8).

7. Determination or Strength of Will

STATEMENTS

We have already observed the power of the will in directing and enforcing the motions of the muscles, but if we further reflect on the various ways in which will operates we shall not fail to be struck with the vast extent of its influence, not only over the muscles, but also over the source of bodily life itself, for its exercise modifies the action both of the brain and the heart—taking possession, so to speak, of the fountains of energy, and regulating in some measure the supply of blood and life to different parts of the body (34:166).

It has been said, and truly said, that a soul which maintains a certain empire over the body it animates may also be of infinite use in preserving life and health. It is self-reliance now, united with a strong will, that gives this dominion to the soul, and thereby contributes a wholesome influence to all the functions of our being. Were it required of me to determine the mental qualities which should be particularly fostered and strengthened, in reference to health, happiness and the force and perfection of human character, I should name self-reliance and volition; for if these are feeble, weakness and

effeminacy, moral and physical, are the almost unavoidable consequences (5:386).

Sometimes the patient *will* be cured, and sometimes she *will* not. Most frequently this *will* is *induced* by some extraordinary moral influence; such was the case in the well-known instance of Miss Fancourt. Such have been the results under the influence of Mesmerism, Perkinism, Homeopathy. Such has been the event when the patient has been roused from a state of moral inertness to ardent activity by some stirring circumstance in her family or condition (22: vol. 1, 95).

The power of the Will in resisting disease apart from the influence of the Imagination or the concentration of the Attention is unquestionable. "Oh, if I could once make a resolution and determine to be well!" exclaimed the German physician Walderstein (6:422).

ILLUSTRATIONS

A young person of hysterical disposition was bled, and soon afterwards became afflicted with contraction of the fingers into the palm of the hand. Under the idea that the nerve had been wounded, the cicatrix left by the venæsection was removed; the spasmodic action of the fingers immediately became relaxed and their use was restored. By degrees the spasm returned, and the operation was repeated with the same good effect, less prompt but not less perfect than before. The spasm returned a third time.

I now began to suspect that even this strange degree of spasm, during which the nails actually grew into the palm of the hand, was not altogether real. I suggested that the patient should be blindfolded, and that a mock operation should be performed. It was performed; superficial but painful lacerations were made in the integuments; it was pretended that a nerve was laid bare, was divided; and it was loudly said, "Now the spasm will

cease and she will open her hand ;” and she did open her hand ! Water was colored with the tinctura lavandulæ composita for the want of blood ! Again, after a time, the spasm seemed to be returning ; but now the whole truth was told, and the patient, for fear of exposure, took care to remain well (22 : vol. 1, 93-4).

Mr. Crosse was severely bitten by a cat, which died the same day hydrophobic. He appears to have thought little of the circumstance, and was certainly not nervous or imaginative in regard to it. Three months, however, after he had received the wound, he felt one morning great pain in his arm, accompanied by extreme thirst. He called for a glass of water. The sequel will be best told in his own words: “At the instant that I was about to raise the tumbler to my lips a strong spasm shot across my throat ; immediately the terrible conviction came to my mind that I was about to fall a victim to hydrophobia, the consequence of the bite that I had received from the cat. The agony of mind I endured for one hour is indescribable ; the contemplation of such a horrible death—death from hydrophobia—was almost insupportable ; the torments of hell itself could not have surpassed what I suffered. The pain, which had first commenced in my hand, passed up to the elbow, and from thence to the shoulder, threatened to extend. I felt all human aid was useless, and I believed that I must die. At length I began to reflect upon my condition. I said to myself, either I shall die or I shall not ; if I do, it will only be a similar fate which many have suffered, and many more must suffer, and I must bear it like a man ; if, on the other hand, there is any hope of my life, my only chance is in summoning my utmost resolution, defying the attack and exerting every effort of my mind. Accordingly, feeling that physical as well as mental exertion was necessary, I took my gun, shouldered it, and went out for the purpose of shooting, my arm aching the while intolerably. I met with no sport,

but *I walked the whole afternoon, exerting, at every step I went, a strong mental effort against the disease.* When I returned to the house I was decidedly better; I was able to eat some dinner and drank water as usual. The next morning the aching pain had gone down to my elbow, the following it went down to the wrist, and the third day left me altogether. I mentioned the circumstance to Dr. Kinglake, and he said he certainly considered that I had had an attack of hydrophobia, which would possibly have proved fatal had I not struggled against it by a strong effort of mind" (6:423-4).

The influence of the Will in controlling disease has already been incidentally referred to in the case of Irving. His own account of an attack of cholera may be made use of advantageously here.* During the invasion of the cholera in 1832 he was "seized with what was in all appearance, and to the conviction of medical men when described to them, that disease which has proved so fatal to so many of our fellow creatures." He had risen in perfect health at his usual early hour. By breakfast time he had become very cold and was laboring under severe pain. His appearance shocked his friends. Vomiting succeeded, and wringing or gnawing pains, and being so weak that he could not sit up, he lay on the bed wrapped in blankets till he had to set out to preach at half past eleven. It appears that he had a little brandy and arrowroot, but felt no better. With sunken eyes, pallid cheeks and an altogether ghastly appearance, he tottered to the church, a quarter of a mile distant, and found another minister officiating for him. He was tempted to shrink back, but summoned resolution to tell his beadle to go into the pulpit and inform him that he would shortly take his place. In the meantime he stretched himself on three chairs in the vestry before the fire. "Even as I shifted my position

* It should be observed that he held and preached that disease is sin, and that no one with faith need or ought to yield to it.

I endured much suffering, and was almost involuntarily impelled to draw up my limbs in order to keep the pain under. Nevertheless, when I stood up to attire myself for the pulpit and went forward to ascend the pulpit stairs the pain seemed to leave me." His sight was dim, his head swam, he breathed with difficulty, he laid hold of the pulpit sides and looked wistfully about, wondering what would befall him. The crisis came. "That instant a cold sweat, chill as the hand of death, broke out all over my body and stood in large drops upon my forehead and hands. From that moment I seemed to be strengthened." He preached upwards of an hour with more unction than he had ever done before. After the service he walked home, eating little or nothing. Yet he preached in the evening in a crowded school-room, and next morning rose before the sun to pursue, "with renewed strength," what he regarded as his course of duty (6:425-6).

III. HEALING AS RELATED TO FAITH AND EXPECTATION

Under this heading we shall present various diseases which, in being cured, exemplify a few of the very great variety of media through which Faith heals, giving, as in the preceding section, first a list of statements to be followed by appropriate illustrations, both of which are composed entirely of extracts or quotations.

STATEMENTS

The influence of ideas upon the body gives rise to a very great variety of phenomena, which border on the marvelous. It may be stated as a general fact that any state of the body which is conceived to be approaching, and which is expected with perfect confidence and certainty of its occurrence, will be very prone to ensue as the mere result of that idea, if it do not lie without the bounds of possibility (2: vol. II, 1392).

The old French Commission on Animal Magnetism, for example, observed: "As to the Imagination, we know the derangement which a vivid and sudden impression has often occasioned in the human machinery. The Imagination renews or suspends the animal functions; it animates by Hope or freezes by Fear; in a single night it turns the hair white; in a moment it restores the use of the limbs or the speech; it destroys or develops the germ of diseases; it even causes death" (6:52).

Expectation of the action of a remedy often causes us to experience its operation beforehand (18:122).

When a person, on swallowing a bread-pill, in the belief that it possesses aperient properties, is purged, it is said to be through his Imagination, the mental condition present yielding, on analysis, a definite direction of thought to the intestinal canal, such leading idea exciting the same peristaltic action as would have been induced by castor oil. The force of this current of thought is augmented by Expectation (6:47).

As some are molested by fantasy, so some again by fancy alone and a good conceit are as easily recovered. We see commonly the toothache, gout, falling-sickness, biting of a mad dog, and many such maladies, cured by spells, words, characters and charms. . . . All the world knows there is no virtue in such charms or cures, but a strong conceit and opinion alone, as Pomponatius holds, "which forceth a motion of the humours, spirits and blood, which takes away the cause of the malady from the parts affected." The like we may say of our magical effects, superstitious cures, and such as are done by mountebanks and wizards. "As by wicked incredulity many men are hurt (so saith Wierus of charms, spells, etc.), we find in our experience by the same means many are relieved" (26:168).

There is a very interesting passage in an old author recognizing in the clearest manner and far in advance of his age the rôle of the imagination in the cures at-

tributed to the sacred charm of relics. The writer is Pierre Pomponazzi, of Mantua, who flourished in the sixteenth century. After remarking "one can easily conceive the marvelous effects which confidence and the imagination can produce, especially when they exist both in the operator and the persons operated upon," he continues, "the cures attributed to certain relics are the result of this confident imagination. Imposters and philosophers alike know that if any other skeleton were substituted for the bones of a saint the patients would not the less be restored to health, as they *believe* they approached the true relics." Alas, for the slow advance of correct ideas on the subtle and marvelous power of the imagination since the days of Pomponazzi! (6:402.)

ILLUSTRATIONS

Toothache.—We all know how one common but painful affection—toothache—is removed temporarily or permanently by Fear or by the Imagination. Familiar with instances of this kind, we can readily believe the statement made by Dr. Ranieri Gerbi, Professor of Mathematics in Pisa . . .—the insect here referred to being called by him *curculio anti-odontalgicus*. Its virtues were wonderful, for if squeezed between the fingers they had only to be applied to the tooth to relieve its aching. Dr. Gerbi states that by this process, which clearly owed its efficacy to the Imagination of the sufferers, he cured four hundred and one cases out of six hundred and twenty-nine. . . . It is unnecessary to multiply examples for as notorious a fact as the magical power of the influence in question; an influence not only well known to the dentist, but to every one on his way to that dreaded personage, who, wishing to believe that the operation is not requisite, begins by doubting whether the pain is after all so very bad, and by the time he sets his foot on the step of the dentist's door convinces him-

self that he is entirely free from it. And so he is; at any rate, for a time (6:384).

Sciatica.—A singular instance of the influence of the Imagination upon sciatica may be found in a practice said to have been once common in Devonshire, related in *The Anatomie of the Elder* of Dr. Martin Blockwick, and cited in Brand's *Popular Antiquities*: "The Boneshave, a word perhaps nowhere used or understood in Devonshire but in the neighborhood of Exmoor, means the sciatica; and the Exmorian, when affected therewith, use the following charm to be freed from it. The patient must lie upon his back on the bank of the river or brook, with a straight staff by his side, between him and the water, and must have the following words repeated over him, viz.:

Boneshave right,
Boneshave straight,
As the water runs by the stave,
Good for the Boneshave.

They are not to be persuaded but that this ridiculous form of words seldom fails to give them a perfect cure" (6:384-5).

Sick Headache.—In the *Life and Letters* of an excellent man, the late Rev. Frederick Wilfred Faber, we read the following, which could easily be paralleled by similar cases of relief from sick headache by very mundane causes:

"I hardly know where to begin. Some time ago a lady at prayer in our church thought it was revealed to her that St. Mary Magdalene of Pazzi wished to confer some *grazia* on me in connection with my headache. Her director gave her permission to act upon this, whereupon she wrote to me begging me, when my headache came on, to apply a relic of the Saint to my forehead. Some days elapsed. I asked Father Francis, my director, for his leave to do this; as it was a merely tem-

poral thing he took some time to consider. I became ill and had a night of great pain. I thought he had forgotten all about it and that it would be a blameworthy imperfection in me to remind him of it. The morning after he came to confession and found me ill in bed; he was going away but I knew he was going to say mass, and so I made him kneel down by my bedside, while I put on my stole and with considerable pain heard his confession; when he rose I gave him the stole and asked him to hear my confession, which he did. Afterwards he said, 'Well, now, I think it would be well to try this relic.' I answered, 'Just as you please.' I was in great suffering and very sick besides. He gave it to me and walked away to the door to say mass. I applied the relic, a piece of her linen, to my forehead. A sort of fire went into my head, through every limb down to my feet, causing me to tremble; before Father Francis could even reach the door I sprang up, crying, 'I am cured, I am quite well!' He said I looked 'as white as a sheet.' I was filled with a kind of sacred fear, and an intense desire to consecrate myself utterly to God. I got up and dressed without any difficulty or pain or sickness" (6:396-7).

Ague.—A chapter might be written simply on the charms supposed to be of efficacy in ague. One remedy was wearing round the neck the mysterious word "Abracadabra," written in a peculiar manner. Chips from the gallows, placed in a bag and hung round the neck, or put on the skin, "will cure the ague or prevent it," says Grose. . . .

It is stated that the ague was very successfully cured by Faith, on a large scale, by Ferrarius. In the course of a twelvemonth he cut the disease short in about fifty persons solely by slips of paper, on which he inscribed the word "febrifuge," and gave them to the patients with the instruction that they should cut off a letter every day. A Spanish lieutenant recovered by the time

he arrived at the sixth letter. John Hunter says: "Agues have been cured by charms which have been used with a thorough conviction of their being a sovereign remedy. I am apt to suppose that a spider's web, when taken for an ague, cures in the same way; at least in one case, for on giving it without the patient's knowledge it had not the slightest effect, but by persuading the patient that it was a spider the effect was produced; at least the disease did not return" (6:410-11).

Warts.—The influence of the Imagination upon warts, trivial as it seems, is really a curious page in the history of this power as a curative agent. . . . A surgeon informs me that some years ago his daughter had about a dozen warts on her hands. They had been there about eighteen months, and her father had applied caustic and other remedies without success. One day a gentleman called, and in shaking hands with Miss C—— remarked upon her disfigured hand. He asked her how many she had; she replied she did not know, but thought about a dozen. "Count them, will you?" said the caller, and taking out a piece of paper he solemnly took down her counting, remarking, "You will not be troubled with your warts after next Sunday." Now it is a fact that by the day named the warts had disappeared and did not return.

Brand points out that warts were cured by magic in Lucian's time, and he refers to a time-honored cure for warts, that of stealing a piece of meat from a butcher's shop, rubbing your warts with it, then throwing it away or burying it. As the beef rots the warts decay. . . .

As Dr. Carpenter says, therefore, "the charming away of warts by spells of the most vulgar kind" belong to those "cases which are *real facts*, however they may be explained" (6:403-4).

Pleurodynia, etc.—Every one has heard the story of the doctor who left his prescription on the table for a lady who suffered from pleurodynia, saying, "Put this

to your side," and how the patient literally did so, instead of obtaining the prescribed plaster, but, in spite of this mistake, derived great benefit from the application.

A parallel case of colic is mentioned by Dr. John Brown, of Edinburgh. He ordered a laboring man some medicine, and giving him the prescription said: "Take *that*, and come back in a fortnight and you will be well." As he returned at that time hearty and well, free from the colic and sinking at the stomach, of which he had complained, and with a clean tongue and cool hand and a happy face Dr. B. was very proud of the wonders his prescription had effected and said: "Let me see what I gave you." "Oh," said he, "I took it." "Yes," said the doctor, "but the prescription?" "I took *it*, as you bade me. I swallowed it"; that is, the paper itself! (6:386-7.)

Rheumatism.—I have before me a large number of cases of the successful treatment of disease by tractors, both metallic and wooden, but shall only select a few in order to show their effect. . . .

At the time when the metallic tractors of Perkins excited so much attention, and their efficacy was attributed to galvanism, Drs. Haygarth and Falconer, of Bath, selected certain patients in the General Hospital for their experiments, employing two wooden tractors of nearly the same shape as those used by Perkins, and painted so as to resemble them in color.

The cases chosen were those of chronic rheumatism—in the ankle, knee, wrist and hip. One attributed his pain to gout. With the exception of the hip case the joints were swollen, and all had been ill for several months.

"Of five patients, all except one assured us that their pains were relieved, and three of them that they were much benefited by the first application of the remedy. One felt his knees warmer and he could walk much bet-

ter, as he showed us with great satisfaction. One was easier for nine hours, till he went to bed, when the pain returned. One had a tingling sensation for two hours. The wooden tractors were drawn over the skin so as to touch it in the slightest manner. Such is the wonderful force of the Imagination. [This requires some modification.]

“Next day, January 8, the true metallic tractors of Mr. Perkins were employed exactly in like manner and with similar effects. All the patients were in some measure, but not more, relieved by the second application except one, who received no benefit from the former operation, and was not a proper subject for the experiment, having no existing pain, but only stiffness of her ankle. They felt (as they fancied) warmth, but in no degree greater than on the former day” (6:432-3). . . .

Mr. Richard Smith, of the Bristol Infirmary, pursued the experiments commenced by Dr. Haygarth, and with the following results:

“Robert Thomas, aet. 43. He had for some time been under the care of Dr. Savill, in the Bristol Infirmary, with a rheumatic affection of the shoulder, which rendered his arm perfectly useless.

“April 19.—Having everything in readiness, I passed through the ward, and (in a way that he might suspect nothing) questioned him respecting his complaint. I then told him that I had an instrument in my pocket which had been very serviceable to many in his state, and when I explained how simple it was he consented to undergo the operation. In six minutes no other effect was produced than a warmth upon the skin, and I feared this *coup d'essai* had failed. The next day, however, he told me that ‘he had received so much benefit that it had enabled him to lift his hand from his knee, which he had in vain several times attempted on the Monday evening, as the whole ward witnessed.’ [The tractors

used being made of lead, Mr. Smith thought it better to substitute for the future two wooden ones.] Mr. Burton held in his hand a stop-watch, whilst Mr. Lax minuted the effects produced. In four minutes the man raised his hand several inches, and he had lost also the pain in his shoulder, usually experienced when attempting to lift anything. He continued to undergo the operation daily and with progressive good effect, for on the 25th he could touch the mantelpiece.

"On the 27th two common iron nails, disguised with sealing wax, were substituted for the pieces of mahogany before used. In three minutes he felt something moving from his arm to his hand, and soon after he touched the Board of Rules which hung a foot above the fireplace. This patient at length so far recovered that he could carry coals, etc., and use his arm sufficiently to assist the nurse; yet, previous to the use of the spurious tractors, he could no more lift his hand from his knee than if a hundredweight were upon it, or a nail driven through it, as he declared in the presence of several gentlemen. The fame of this case brought applications in abundance" (6:433-4). . . .

Dr. Alderson adopted the same course of treatment in the Infirmary at Hull, with what result will be seen in the following case, which is taken from the same work:

"Robert Wood, aet. 67, on June 4 was operated upon with (wooden) tractors for a rheumatic affection of the hip, which he has had for these eight months. During the application of the tractors, which was continued for seven minutes, no effects were produced except a profuse perspiration and a general tremor. On ceasing the application of the tractors, to his inexpressible joy and our satisfaction the good effects of our labor were now produced and acknowledged, for he voluntarily assured us that he could walk with perfect ease, that he had the entire motion of the joint and that he was free from

pain. To use his own words, 'As to the pain I have now, I do not care if I have it all my life; that will matter nothing; you may take your medicines, I'll have no more of them.' And prior to his leaving the Infirmary he remarked how very warm those parts were where the tractors had been applied, and then walked from the Infirmary to his own house, assuring his companion he could very well walk to Beverley.

"June 5th.—Walked to the Infirmary this morning with very trifling difficulty; was so much pleased with the relief or rather cure obtained yesterday that, to use his own words again, he had very joyfully spread abroad the intelligence to his acquaintance. Has had some return of pain this morning, which, however, was removed by another application, and when asked how he felt declared 'as bonny as augh,' and then marched off with a countenance expressive of his gratitude for the wonderful relief he had obtained" (6:436-7).

Cramp in the Stomach, etc.—The following series of cases from *The British and Foreign Medical Review*, January, 1847, was communicated by a naval surgeon, whom the editor, Sir John Forbes, characterizes as an officer of long standing and much experience, whose name and high character were known to him.

"A very intelligent officer had suffered for some years from violent attacks of cramp in the stomach. He had tried almost all the remedies usually recommended for the relief of this distressing affection, and for a short period prior to coming under care the trisnitate of bismuth had been attended with the best results. The attacks came on about once in three weeks, or from that to a month, unless when any unusual exposure brought them on more frequently. As bismuth had been so useful it, of course, was continued, but notwithstanding that it was increased to the largest dose that its poisonous qualities would justify it soon lost its effect. Sedatives were again applied to, but the relief afforded by

these was only partial, while their effect on the general system was evidently very prejudicial. On one occasion, while greatly suffering from the effect of some preparation of opium, given for the relief of these spasms, he was told that on the next attack he would be put under a medicine which was generally believed to be most effective, but which was rarely used on account of its dangerous qualities, but that, notwithstanding these, it should be tried, provided he gave his assent. This he did willingly. Accordingly, on the first attack after this, a powder containing four grains of *ground biscuit* was administered every seven minutes, while the greatest anxiety was expressed (within the hearing of the party) lest too much should be given. The fourth dose caused an entire cessation of pain. Half-drachm doses of bismuth had never procured the same relief in less than three hours. For four successive times did the same kind of attack recur, and four times was it met by the same remedy, and with like result! After this my patient was ordered to join another ship on a different station."

In the next case, treated by the same medical man, constipation was relieved by the psychical method.

"A seaman had suffered from four successive attacks of constipation. So far as could be detected, there was no organic disease to account for its occurrence. The symptoms were such as usually follow protracted constipation of the bowels; and on all four occasions large and repeated doses of the strongest purgatives (croton oil included), powerful enemata, cold affusion, and hot baths had all been required to be persevered in to procure relief. On the fifth attack, he was put under grs. ij of bread pill every seven minutes; much anxiety being, of course, expressed to guard against any overdose, as well as to watch the effect of what was thus given. Within two hours he became sick (*one of the symptoms expected from the medicine*), and his bowels were freely

open almost immediately after; nor did they again become constipated so far as I am aware" (6:427-8).

Paralysis, etc.—Sir Humphrey Davy's well-known case of cure of paralysis was due to aroused hope and expectation. This case is of interest from the application not having been made to the part affected; local excitement was not an element in the treatment; and the Attention was directed rather from than to the paralyzed limb.

Dr. Paris relates the circumstance in the following words: "Early in life he was assisting Dr. Beddoes in his experiments on the inhalation of nitrous oxide. Dr. Beddoes having inferred that the oxide must be a specific for palsy, a patient was selected for trial, and placed under the care of Davy. Previously to administering the gas, Davy inserted a small thermometer under the tongue of the patient, to ascertain the temperature. The paralytic man, wholly ignorant of the process to which he was to submit, but deeply impressed by Dr. Beddoes with the certainty of its success, no sooner felt the thermometer between his teeth than he concluded the talisman was in operation, and, in a burst of enthusiasm, declared that he already experienced the effects of its benign influence throughout his whole body. The opportunity was too tempting to be lost. Davy did nothing more, but desired his patient to return on the following day. The same ceremony was repeated; the same result followed; and at the end of a fortnight he was dismissed cured, no remedy of any kind except the thermometer ever having been used" (6:390-1).

Among all the moral causes which, appealing to the imagination, set the cerebral mechanism of possible causes at work, none is so efficacious as religious faith. Numbers of authentic cures have certainly been due to it.

The Princess of Schwartzenburg had suffered for eight years from a paraplegia for which the most cele-

brated doctors in Germany and France had been consulted. In 1821 the Prince of Hohenlohe, who had been a priest since 1815, brought a peasant to the princess, who had convinced the young prince of the power of prayer in curing disease. The mechanical apparatus, which had been used by Dr. Heine for several months to overcome the contracture of the limbs, was removed. The prince asked the paralytic to join her faith both to his and the peasant's. "Do you believe you are already helped?" "Oh, yes, I believe so most sincerely!" "Well, rise and walk." At these words the princess rose and walked around the room several times, and tried going up and down stairs. The next day she went to church, and from this time on she had the use of her limbs (17:198-9).

The following are . . . cases at Lourdes which we give by way of comparison:

"Mademoiselle C. E——, in 1864, after exposure, got violent pain in back, altered sensation, paralysis of lower extremities, and was afterwards generally paralyzed. Admitted to hospital in 1869 as a case of 'chronic myelitis,' she was transferred to the incurables in 1870; Barèges was fairly tried, but in 1873, the malady having progressed, she yet began to entertain fervent hope and confidence in our Lady of Lourdes. Carried there . . . no sooner did her feet touch the water than she felt life return and pass to all the limbs; she felt no pain, and threw herself on her knees in the bath. She says, 'I felt the presence of the Virgin; I felt her touch me; I felt her round me.' The legs previously wasted were found well developed and strong! The patient returned home well, and has remained so for five years.

"M. C. P——, aet. 14, 'vive et impressionable.' . . . After a fall downstairs she then remained some time in bed and could not stand. M. Labbé certified her as paralytic. This was complicated with frequent attacks of epilepsy; the limbs were like dead, and could not feel

needles inserted. For treatment she had bromides, electricity, and, at St. Louis, baths, phosphate of lime, and externally the actual cautery. After one violent attack the right arm became paralyzed, but this got well at the close of a novena. Carried to the grotto; as she lay before it she was taken with three shivers; 'the second made her rise, the third obliged her to run towards the shrine; at first she staggered, then walked firmly, and took to tending the sick' " (6:392-3).

Spinal Curvature, etc.—Nearer home than Lourdes have there been manifestations of an extraordinary character followed by alleged miraculous cures which call for some notice here. In the summer of 1879, an apparition of the Virgin was seen at Knock, near Claremorris, in the West of Ireland, and this place subsequently became the resort of numberless pilgrims in quest of health, who found in the whitewash or cement of the walls of the church where the vision was seen the means of rapidly removing various disorders, as paralysis, rheumatism, sciatica, and heart disease. The effect was heightened and sustained by the repetition of the miraculous appearances from time to time. The correspondent of the *Cork Examiner* (Sept. 17, 1881) in describing his visit to Knock, writes: "We had heard so much of the cures accomplished at this shrine, that to hear of them from the true source, from the Curé himself, was the resolve we had made, and to his lowly residence we turned our steps; we found him seated at a table, reading his office by the light of a small lamp. He told of several cures, some of which we subjoin. He has received in the case of one cure, three medical certificates. W. J. Holland was suffering from curvature of the spine, and had to wear a plaster jacket; he was cured when he came to Knock, and soon after threw off his jacket, which weighed fifteen pounds, and walked twenty miles. George Crallene was cured of hip disease, and after his cure, entered the Diocesan College of his county, and is

now on his way to Rome to complete his studies for the priesthood. Father Kavanagh has seen the figure of the Blessed Virgin on two or three occasions; he has heard her speak, and frequently has seen the most brilliant radiances, surpassing anything in nature, resplendent and dazzling, whiter than fuller's earth. Together with these wonderful appearances, is the cure of the tumor of the niece of the present Bishop of Limerick, which was pronounced incurable by a most eminent physician. She made a novena to our Lady of Knock, using the cement sent to her by a friend. It is no exaggeration to say that hundreds have been cured in visiting Knock, and hundreds have been cured who could not take the journey by using the cement and invoking the pity of the Mother of God."

Dr. John Campbell Quinn, of Belfast, writes respecting a girl of sixteen, hardly able to walk, suffering from scrofulous abscesses around the hip-joint, which had been discharging for some years. She went to Knock. Three weeks after her return when seen by the doctor "the change in her condition was surprising. She had become healthy and pleasant looking, with red lips and full pulse, and the discharge had stopped. I have seen her three or four times since, and each time her condition is better; only the cicatrices remain. Today (Aug. 3, 1880) I pronounce her well and fit for work" (6:397-8).

Scrofulous Swellings, etc.—Browne, of Norwich, surgeon to King Charles II., published a book called *Adenochoiradologia, or a Treatise of Glandules, and the Royal Gift of Healing Them*. In it is the account of the case of a child which we cite here: "A Nonconformist child, in Norfolk, being troubled with scrofulous swellings, the late deceased Sir Thomas Browne, of Norwich, being consulted about the same, his majesty being then at Breda or Burges, he advised the parents of the child to have it carried over to the king (his own method being

used ineffectually); the father seemed very strange at his advice, and utterly denied it, saying the touch of the king was of no greater efficacy than any other man's. The mother of the child, adhering to the doctor's advice, studied all imaginable means to have it over, and at last prevailed with her husband to let it change the air for three weeks or a month; this being granted, the friends of the child that went with it, unknown to the father, carried it to Breda, where the king touched it, and she returned home perfectly healed. The child being come to its father's house, and he finding so great an alteration, inquires how his daughter arrived at this health. The friends thereof assured him that if he would not be angry with them, they would relate the whole truth; they having his promise for the same, assured him they had the child to be touched at Breda, whereby they apparently let him see the great benefit his child received thereby. Hereupon the father became so amazed that he threw off his Nonconformity, and expressed his thanks in this manner: 'Farewell to all dissenters, and to all nonconformists; if God can put so much virtue into the king's hand as to heal my child, I'll serve that God and that king so long as I live, with all thankfulness.' . . .

"Even tumors," says Hunter, "have yielded to the stroke of a dead man's hand" (6:416-7, 405).

Scurvy.—That nervous diseases are not alone influenced by the Imagination or Expectation, is well known by the effect produced upon blood diseases. Scurvy, as has often been stated, was cured solely by this means at the siege of Breda, in 1625. The Prince of Orange, when the city was almost obliged to capitulate, sent word to the sufferers that they should soon be relieved, and provided them with medicines pronounced to be very efficacious in the cure of scurvy. "Three small phials of medicine were given to each physician, not enough for the recovery of two patients. It was publicly given

out that three or four drops were sufficient to impart a healing virtue to a gallon of liquor." "We now displayed our wonder-working balsams," continues the narrator, Dr. Frederick Van der Mye, "nor were even the commanders let into the secret of the cheat put upon the soldiers. They flocked in crowds about us; every one soliciting that part might be reserved for their use. Cheerfulness again appears in every countenance, and a faith prevails in the sovereign virtues of the remedy. . . . The effect of the delusion was really astonishing; for many quickly and perfectly recovered. Such as had not moved their limbs for a month before were seen walking the streets, sound, upright, and in perfect health. They boasted of their cure by the Prince's remedy. . . . Many who declared that they had been rendered worse by all former remedies, recovered in a few days—to their inexpressible joy, and the no less general surprise—by taking (almost by their having brought to them) what we affirmed to be *their gracious Prince's cure*." Before this happy experiment was tried, they were, states Van der Mye (who was present), in a condition of absolute despair. "This, the terriblest circumstance of all, gave rise to a variety of misery; hence proceeded fluxes, dropsies, and every species of distress (omne chaos morborum), attended with a great mortality" (6:405-6).

Comments and Conclusions

Examples similar to those just cited might be multiplied to an almost unlimited extent. As regards phenomena of this kind, Dr. Carpenter observes: "The influence of the state of *expectant attention*, in modifying the processes of Nutrition and Secretion, is not less remarkable than we have already seen it to be in the production or modification of Muscular movements. It seems certain that the simple *direction of the conscious-*

ness to a part, independently of emotional excitement, but with the *expectation* that some change will take place in its organic activity, is often sufficient to induce such an alteration, and would probably always do so if the concentration of the attention were sufficient. The most satisfactory exemplification of this principle has been given by the experiments of Mr. Braid, who has succeeded in producing very decided changes in the secretions of particular organs by the fixation of the attention upon them in the 'hypnotic' state. Thus he brought back an abundant flow of milk to the breast of a female who was leaving off nursing from defect of milk, and repeated the operation upon the other breast a few days subsequently, after which the supply was abundant for nine months; and in another instance he induced the catamenial flow on several successive occasions when the usual time of its appearance had passed. It is not requisite, however, to produce the state of Somnambulism for this purpose if the attention can be sufficiently drawn to the subject in any other mode; thus Mr. Braid has repeatedly produced the last-named result on a female who possessed considerable power of mental concentration by inducing her to fix her thoughts upon it for ten or fifteen minutes, so as to bring on a state of abstraction. Now the effects which are produced by this *voluntary* or determinate direction of the consciousness to the result are doubtless no less producible by that *involuntary* fixation of the attention upon it which is consequent upon the eager expectation of benefit from some curative method in which implicit confidence is placed. It is to such a state that we may fairly attribute most, if not all, the cures which have been worked through what is popularly termed the 'imagination.' The cures are real facts, however they may be explained; and there is scarcely a malady in which amendment has not been produced, not merely in the estimation of the patient, but in the more trustworthy opinion of medical

observers, by practices which can have had no other effect than to *direct the attention* of the sufferer to the part, and to keep alive his *confident expectation* of the cure. The 'charming away' of warts by spells of the most vulgar kind, the imposition of royal hands for the cure of the 'evil,' the pawings and strokings of Valentine Greatrakes, the manipulations practiced with the 'metallic tractors,' the invocations of Prince Hohenlohe, *et hoc genus omne*,—not omitting the globulistic administrations of the Infinitesimal doctors, and the manipulations of the Mesmerists, of our own times,—have all worked to the same end, and have all been alike successful. It is unquestionable that, in all such cases, the benefit derived is in direct proportion to the *faith* of the sufferer in the means employed; and thus we see that a couple of bread pills will produce copious purgation, and a dose of *red* poppy syrup will serve as a powerful narcotic if the patient have entertained a sufficiently confident expectation of such results" (11:863-4).

Why, then, do Faith and Expectation work such miracles of healing? Evidently because they bring into efficient operation every characteristic of the mind, mentioned thus far in this chapter, through which healing takes place. To be specific, Faith and Expectation are exceedingly potent not only in producing those states of consciousness which are so helpful in relieving pain, and in causing a stimulation or excitation of the muscles and of the organic functions, corresponding to that which arises from joy, fear (of the arousing type) and other emotions of a similar nature, but also in begetting a strong impression, fearlessness, mental energy and strength of will, which work wonders in restraining abnormal muscular activity and in expelling morbid or diseased conditions from the physical organism, while, at the same time, the attention is centred, either unconsciously or consciously, on the part affected. But a "strong impression," "mental energy" and "strength

of will" are effects and dependent upon emotion for their manifestation. Therefore, in the last analysis, the healing power of mind resides very largely, if not altogether, in the Emotions and inasmuch as Faith surpasses by far all other agents in arousing the Emotions, it, for this very reason, greatly excels them all in its power to heal. Says Dr. Hall: "The effect of the royal touch or that of a hanged man's hand,—for the human mind is prone to extremes,—can only act by inducing emotion" (22: vol II, 25).

Likewise Dr. Braid observes: "The mental emotions of joy and sorrow, love and hatred, fear and courage, benevolence and anger, may all arise from real or from imaginary causes only, and may seriously affect the physical frame. In many instances these different and opposite emotions have proved almost instantly fatal; in other instances equally sanative. How is this achieved? Are not the whole of the emotions accompanied by remarkable physical changes, in respect to the respiration and circulation as well as sensation? Are they not highly excited in one class, and depressed in the other? And may not this act as the proximate cause in effecting the permanently beneficial results during hypnotism?" (8:286-7). Moreover, speaking of results obtained by hypnotism analogous to those derived "through fear and anger," he very suggestively remarks: "I would ask is not hypnotism quite as convenient and desirable a remedy as setting a ship on fire, raising a thunder-storm, converting the patient's home into a bonfire, or exciting him into a violent passion of anger?" (8:286).

Evidently from the facts already established we may draw the following conclusions:

1. Many, and perhaps we should say most, persons could heal themselves and every influence should be brought to bear to induce them to do so. In doing this, each individual should resort to those devices which are most effectual in bringing into efficient operation those

states of consciousness which we have shown to be very potent to heal, which devices, of course, will vary greatly with persons, owing to differences in temperament and mental development, to idiosyncracies and the like. The following remarks by Wilkinson are worthy of the most careful consideration: "Like drugs, cold water, movement, and stimulants, mesmerism is capable of abuse in many ways. Ill-disposed persons may use it to acquire an influence for bad ends. It is, however, probably more often abused by the patients than by the agents, being resorted to as a kind of opiate to compensate for the want of moral determination. In this case it keeps up a pernicious valetudinarianism that saps the foundations of resolve in the patient, by causing him to rely upon others where there is strength sufficient, were it exerted, in his own organization. A fatal mistake is made whenever we treat with petting and coddling, in our own minds, or in others, states which we ought to discipline with a moral lash; and this mistake, I fear, is often committed by mesmeric patients. They must know that there is no patent outward means that can be a substitute for sanity of will; that sooner or later they must exert themselves, and waken from their delusions; and that every dose of their mesmeric opium over and above what was required, is the vehicle of a weakness which it will cost them a fresh struggle to conquer, whenever the time when they must arise shall come" (9:470-1). These remarks regarding reliance on "mesmerism" for help apply equally well to a too great reliance on a practitioner of any system of mental or psychic healing.

2. Even a falsehood, as is evident from some examples cited above, may effect a cure by dispelling a disturbed mental state and arousing Faith and Expectation. Says Unzer: "From an error of the understanding, the mind may esteem something to be good or to be evil, which is the contrary. But since in either case,

nevertheless, the pleasure or pain therefrom is felt, it follows, according to the laws of the sentient actions of both, that the agreeable motives will originate changes favorable to health, while the disagreeable originate unfavorable changes. Hence error and truth may alike sometimes advance, sometimes detract from, the well-being of an animal; so that in this respect, as is the case generally, it is not every truth that is propitious, nor every error that is unpropitious" (18:179).

3. A "quack" medicine (or any other) could produce the most wonderful cures, provided it induced a mental state conducive to this end, even though it did not contain one iota of healing virtue. Hence, many a drug, which has worked well for a time, has eventually been cast aside as of no real value.

4. A mental or psychic healer of any school whatsoever, even though very deficient in certain moral qualities, could, by inducing patients to fulfil those conditions whereby healing takes place, effect cures in abundance.

5. A person in a very harmonious mental state can, through the medium of thought-transference, greatly benefit a patient in a very disturbed state of consciousness by imparting to such patient his own mental condition and helpful suggestions. Moreover, in order to do excellent work in healing by this method, it is not absolutely essential, although desirable insofar as possible, that the practitioner is constantly in a harmonious mental state, but always so at the time of giving a treatment. Many excellent healers with lofty aims and aspirations, owing to unusual sensitiveness, or to serious defects unsubdued, or to both, at times give way momentarily at least to fits of temper or other inharmonious states of mind. This mode of treatment, however, we should not overlook, does not prevent the exercise of Faith and Expectation on the part of the patient, which in many if not in most cases is, perhaps, the most potent, if not the only, factor in effecting a cure.

6. Mental or psychic healers of all schools can injure as well as benefit their patients by what is termed "malpractice," unless the person acted upon reject or expel at once bad thoughts or suggestions so imparted and substitute good and wholesome ones in their stead. Moreover, no system of psychic healing, even though it have a religious designation, we are convinced, is free from those who use their power and influence intentionally for harm, in order to accomplish their own selfish ends. Of course, persons who do not profess to be healers can and, in multitudinous cases, do make use of mind power for good or evil purposes.

7. A person of sensitive conscience and lofty aspirations is much more likely to be seriously disturbed mentally than one who is very deficient in these qualities and, consequently, is far more liable to be rendered unwell in this way. Therefore health is not necessarily a proof that one individual is on a higher moral plane than another. On the contrary, a person may be very virtuous and still be ill and very vicious and still be well. Disease or inharmony, however, due to mental causation, does indicate in many, if not most, instances that one is not perfectly successful in realizing, or living up to, one's ideals.

8. There is every reason to suppose that any disease caused by mind (and, perhaps, any disease whatsoever) can also be cured by mind, provided the proper states of consciousness can be brought into operation with sufficient potency.

9. In most, if not all, cases, a cure can be effected without putting the patient into a state of hypnosis, but, although this is preferable insofar as possible, it does not protect the person operated upon from being influenced harmfully by the practitioner, since suggestion can be made to operate very potently for evil as well as for good where no hypnosis or sleep takes place.

10. In chapter III we presented evidence to show

that not only nervous troubles but also the most severe organic diseases can be *caused* by mental states. In this chapter we have given abundant proof that not only the former but also the latter can be *cured* in a similar manner. Moreover, since, in numerous cases cited, the cure was effected by psychic agencies after the most powerful medicines had failed, evidently there is a power in mind to heal many if not all diseases, when brought into the most efficient operation possible, far more potent than that contained in any drug.

11. In healing, it is possible to determine what can be accomplished by *mental* agencies alone, but not what can be effected by *material* ones, since it is never possible to eliminate the psychic factor altogether.

12. If it should ever be demonstrated that there is a power in mind to cure every disease, this would not necessarily prove that material substances (or the forces residing in them) cannot assist in healing, or that a due regard to physical hygiene in its various aspects is not essential in order to attain the most harmonious and perfect life possible.

CHAPTER VI

EVOLUTION FROM A PHYSICAL AND METAPHYSICAL POINT OF VIEW

Next to the conception of *Diety*, that of evolution is, perhaps, the greatest and most helpful thought that has ever entered the mind of man. It is the key, not only to all history, but to all knowledge and to all human experience, whether in the realm of physics or metaphysics.

Nations, as regards their stage of development, have been divided into the savage, barbarous, half-civilized, civilized and enlightened. It is evident that this division is purely arbitrary, though it may be convenient and, perhaps, necessary to use such terms in describing human progress. The facts are, however, that as the darkness of midnight gradually passes into the splendors of noon, so do the stages of man's development merge into each other by insensible gradations. Furthermore, a remote period of human development is not included in this category and we are forced to believe that, as regards length of time, the unwritten history of the race far exceeds that of which we have a record.

People in the savage state have made considerable advancement in the arts and sciences. Also, they possess a large stock of information in the shape of stories, myths, and legends, handed down from generation to generation by oral tradition. This period, which corresponds to that in the unfolding of the child when the imagination and fancy hold sway, doubtless covers thousands of years. Preceding this and extending back through almost countless cycles into the dim and mysterious past, are those periods of race development which correspond to infancy—that of silent wonder and the

gradual growth of communication between soul and soul through the medium of sound or the spoken word. If, then, the history of the individual and of the race are analogous, this must have been the order of human progress: First, a period in which the mental powers had scarcely begun to manifest themselves and there was, consequently, almost a total lack of verbal intercourse among men, followed by a period of the growth of language and, later, of oral tradition. The difficulty of preserving knowledge in this way led, first, to picture-writing and, later, to the invention of characters representing the different sounds. Lastly came the invention of movable types, resulting in the printing-press, which has reached such a stage of efficiency and perfection that books, papers, and magazines have become so cheap as to be within the reach of practically everyone, and so abundant that we become intellectually satiated, the difficulty being in knowing what to choose out of so great a superfluity of material. In this way the experiences of mankind have been handed down from generation to generation, each adding more or less to those that have passed.

In the on-going of humanity, owing to this increase in knowledge, every age has a life of its own, differing, in some respects, from all that have preceded it. What is true of humanity as a whole, is also true of each individual composing it. We enter upon our earthly career seemingly in utter ignorance, and begin to unfold in accordance with the laws of our being. At birth no two are constituted exactly alike. Moreover, inasmuch as each moment brings with it new experiences and new knowledge, in the most literal sense, every day reveals to us a "new heaven and a new earth." The nature of this new world is determined, not only by the extent of our knowledge, but by its quality as well. The geologist lives for the most part in a mineral world, the botanist in a vegetable world, the astronomer in a world of celes-

tial bodies, and the musician in a world of vibration or sound. Likewise, owing to various limitations and a difference in the tastes of individuals, each has his own special world in addition to a general world common to all. Moreover, the world of each individual is modified, not only by his own particular calling in life, but also by national characteristics. For this reason those of one nationality are more or less readily distinguished from those of another.

Still again, a distinction of vast importance, which pertains alike to individuals and to nations, is that arising from a difference of development between the outer and the inner, that is, between the physical and the metaphysical. With respect to this, a good illustration is found in the difference of characteristics existing between the Eastern and Western nations. The Hindu has gone deep into the realm of the super-material or super-sensible, the nations of the West into the so-called physical sciences.

As regards the individual and the race, the natural order of development in the perception and understanding of that which exists is to pass from the without, to the within; from the realm of appearances, to the realm of reality; from the realm of sense perception, to the realm of spiritual or soul perception; from the realm of diversity, to the realm of unity; from the realm of seeming disorder, to the realm of order; from the realm of seeming lawlessness, to the realm of absolute law; from the realm of that which is seen and temporal, to the realm of that which is unseen and eternal.

1. The Extent of Matter or of the Material Universe

Says the Apostle Paul: "When I was a child, I spake as a child, I understood as a child, I thought as a child; but when I became a man, I put away childish things" (1 Cor. 13:11). The child, from the very nature of its

being, must, of necessity, judge of things according to the outward appearance. And what is true of the child is equally true of the childhood of the race. It was perfectly natural that primitive humanity should conceive of the earth as flat; of the sky as a solid dome; of the sun, moon and stars as having been placed in this solid expanse merely to give light upon the earth; of the earth as the centre of the universe and all-important and of all else as of secondary importance. In fact they could have conceived of the outer world in no other way. So near did this over-arching roof of blue appear to them that it is said the ancient Hebrews not only conceived of the possibility, but actually set about the building of a tower on the plains of Shinar, whose top was to reach even unto heaven, and make it possible for man to ascend to, what he regarded to be, the abode of the celestial beings (See Gen. xi). That they should regard such an undertaking possible is not at all strange; for to them, of necessity, things were just what they seemed. This dome-encompassed, insignificant world was the realm in which primeval man lived for thousands of years.

It is hard for us to realize how limited a knowledge of the universe was possessed by even the most enlightened persons of Europe only four or five centuries ago. Not only was the whole Western world unknown to them, but the greater part of Africa and a large part of Asia, while the starry heavens were an unexplored country. Not until the time of Galileo, who was born in the sixteenth century of our era, did this state of enlightenment change to any considerable extent. Then there comes a complete revolution in man's conception of the universe. Through the invention of the telescope, world upon world is opened up to view, and the marvelous fact is ere long revealed that so remote are the most distant stars that come within the range of telescopic vision that it takes light no less than 5,000 years to come from

them to us, traveling at the incomprehensible rate of 186,000 miles per second. Such, then, is the extent of matter or of the material universe which has been opened up to our apprehension through the work of physical science.

2. The Size of Material Objects or of Masses of Matter

Equally great, perhaps, has been the change which has taken place in the minds of men in their conception of the size of material objects, or of masses of matter. To the ancients the sun and moon were no larger than they appear to be, and the stars were mere specks in the sky. Even Anaxagoras, a Greek philosopher, who was born about 500 B. C., held that the sun was a mass of red-hot iron or heated stone, somewhat bigger than the Peloponnesus, and that the heaven was a vault of stones prevented from falling by the rapidity of its circular motion. Hence, from his point of view, the earth was immeasurably larger than the sun, and, of course, he had no idea of the immensity of the earth itself.

Moreover, had Columbus known the dimensions of the earth and the expanse of water to be passed over in order to reach land in his search for a westward passage to India, it is altogether probable that he would never have had the courage to set out on so daring an expedition in those three frail vessels, the *Pinta*, *Niña*, and *Santa Maria*. Furthermore, even if he himself had desired to make the venture, where were the sailors to be found who would have risked their lives in so hazardous an undertaking? Now not only do we know the size of the earth, but that it is a mere speck, so to speak, in comparison with some of the remote heavenly bodies. For instance, whereas the diameter of the earth is only 8,000 miles, that of Jupiter is nearly ten times as great. Furthermore, we are told that it would take at least 300,000 bodies the size of our earth to make one as large as the

sun, while some of the more distant stars are ten times as large as the sun itself. To such an extent, then, have people changed their views in regard to the size of material objects.

3. The Nature or Divisibility of Matter

Remarkable as these changes may seem as to our conceptions of masses of matter, even more startling are the advances which have been made along the lines of its divisibility. The ancients separated the elements, from their appearance probably, into four divisions, earth, air, water and fire. Modern chemistry has discovered that every solid can be converted into a liquid or a gas and vice versa, and has reduced all matter to something like seventy distinct substances, each radically different from the others and possessing its own peculiar characteristics. These in turn have been resolved into atoms—exceedingly small particles of matter, and from a union of two or more of these molecules are formed, which are the basis of multitudinous substances, whose properties and characteristics are radically different from those of the originals of which they are composed. A molecule of water contains three atoms and is estimated to be the fifty-millionth of an inch in diameter. Our best microscopes render “barely visible a point the one hundred-thousandth of an inch,” and when we come to realize that “the powers of the microscope have not been doubled within the last fifty years,” one can readily see that there is not the most remote probability of our ever being able to see one of these imaginary objects. Also this improbability is rendered all the stronger from the fact that their “direction of motion is changed millions of times in a second” and that they are doubtless “perfectly transparent” (See 13:15-7).

The number of atoms in a single cubic inch of water

has been estimated to be 125 sextillions (125,000,000,000,000,000,000,000,000), or 125 with twenty-one ciphers annexed. To give some faint idea of what this means, Prof. Dolbear makes use of a very striking illustration. Speaking of the stars, he says: "On a clear but moonless night . . . only about two thousand can be seen in the whole sky. If one million stars were to be thus visible, it would require five hundred firmaments as large and as well filled as the one looked at to contain them. With the largest telescopes less than a hundred million of stars are visible; but what shall one say when he learns that beyond a peradventure the number of atoms in a single cubic inch of matter of any sort is more than a million of millions times all the stars in all the heavens visible in the largest telescope" (13:18-9). If this be the number of atoms in a single cubic inch of matter, what must be the number in a body the size of our globe, not to say throughout the entire visible universe? Likewise scientists affirm that light, heat, electricity, magnetism, chemism, color, sound—in short, all the phenomena of the outer world are due, and due only, to a difference in vibration of these infinitesimally small particles of matter. Also, according to their testimony, these atoms never change as to their essential nature, are absolutely indestructible, and their number always has been and forever will continue to be the same. Nor can they be compelled to unite to form the different substances only in accordance with certain fixed laws. Furthermore, we are told that all these atoms move about in an ocean of ether, which is radically different from matter, in that it is "not atomic in structure, presents no friction to bodies moving through it, and is not subject to the law of gravitation" (13:35). Hence we see that modern science has reduced all the phenomena of the external universe to these three factors: matter, ether and motion.

4. What This Knowledge Signifies

What, then, is the conception of the material universe as it presents itself to the mind of the student of physical science? Stated briefly, we have satellite systems, planet systems, sun systems, group systems, cluster systems, nebula systems, and so on *ad infinitum*, scattered throughout boundless space, each having an orbit of its own, wheel within wheel, and all moving with a velocity which is beyond the bounds of finite comprehension. These bodies, in turn, are made up of countless atoms, no two of which ever touch each other, and which are changing their positions millions of times in a second. Also, both worlds and atoms are floating about in an ocean of ether, which not only extends through all space but also pervades the most solid substances.

At this point the question naturally arises, Has the rapid increase in our knowledge of physical science diminished one iota the mysteries of the universe? On the contrary, has it not multiplied them a thousand-fold? As we contemplate all this phenomena, due to the intense activity of particles of matter, we begin to realize the significance of the statement that we are in the presence of an "infinite and eternal energy from which all things proceed." This, however, is simply another way of saying that there is only one power in the universe. But if there is but one power or energy, then, in an absolute sense, there is but one life and one mind. Moreover, power or energy is an effect and cannot be conceived of apart from a real being or entity. What, then, we are forced to inquire, must be the cause of the power or energy which results in all this activity? From what we know of ourselves and of the relation which we sustain to the universe, we are compelled to assume that the *causa causarum* or great First Cause is Universal Mind or Spirit, which, to most persons, goes under the appellation of God or Deity. Furthermore, in making this as-

sumption, we go no farther than the advocates of physical science, since neither atoms or ether have ever been seen by them, but are hypothetical postulates to account for certain phenomena not otherwise capable of explanation. Likewise, inasmuch as this activity is orderly and governed by fixed laws, we also assume that the Universal Mind is constant or undeviating in all its modes of operation. Thus in our study of the external world, even though we accept as true the teachings of physicists, we are driven back from matter to spirit, from the changeable to the unchangeable, from seeming chaos to the stability of immutable law.

Says one of the greatest of modern physiologists and psychologists: "It should be clearly understood that Science is nothing else than Man's Intellectual representation of the phenomena of Nature,—his conception of the Order of the Universe in the midst of which he is placed. That conception is formulated in what he terms *Laws of Nature*; which, in their primary sense, are simply expressions of *phenomenal uniformities*, having no coercive power whatever. . . . To speak of such *phenomenal* Laws, however, as *governing* phenomena is altogether unscientific; such laws being nothing else than comprehensive expressions of aggregates of particular facts, and giving no *rationale* of them whatever (30:692-3). . . .

"The culminating point of Man's Intellectual interpretations of Nature may be said to be his recognition of the Unity of the Power, of which her phenomena are the diversified manifestations. Towards this point all Scientific inquiry now tends. For the Convertibility of the Physical Forces, the Correlation of these with the Vital, and the intimacy of that *nexus* between Mental and Bodily activity, which, explain it as we may, cannot be denied, all lead upwards towards one and the same conclusion,—the source of all Power in Mind. . . . Among the most enlightened of the Greek and Roman

philosophers we find a distinct recognition of the idea of the Unity of the directing Mind from which the Order of Nature proceeds; for they obviously believed that, as our modern poet has expressed it,—

All are but parts of one stupendous whole,
Whose body Nature is, and God the Soul.

And thus, whilst the deep-seated instincts of Humanity and the profoundest researches of Philosophy alike point to Mind as the one and only source of Power, it is the high prerogative of Science to demonstrate the *unity* of the Power which is operating through the limitless extent and variety of the Universe, and to trace its continuity through the vast series of ages that have been occupied in its evolution" (30: 696-7).

CHAPTER VII

THE RELATION OF MENTAL HEALING TO THE WELFARE OF HUMANITY

Of all the movements of the present day which have for their end the welfare of humanity, doubtless none are so broad, so deep, and so practical as that which we have designated mental or psychic healing. It has its foundations deep in idealism. It is based upon that which is unseen by mortal sense, but, nevertheless, not upon that which is unknown. Its principles, which are capable of demonstration by everyone, are the deepest and most sublime of all realities, using the term reality in the sense of that which is unchangeable and eternal.

This movement is composed, not only of seers, poets and philosophers, but of all who manifest the intuitional spirit. It has always included within its ranks many of the most learned men and women; but knowledge, as taught in the schools, not only is not essential, but, not infrequently, has proved a barrier to the understanding and acceptance of its philosophy. Its followers are not confined to any age, race, occupation, profession, sect or school, but are to be found in remote as well as modern times, among all the great nations, and in nearly, if not every, occupation, profession, sect or school, whether religious or otherwise.

Among those who belong to this grand movement there never was nor ever will be a single pessimist. Yet none are debarred, save through their own mental state, which results from seeing the negative rather than the positive side of things. Most, if not all, advocates of mental healing declare in the face of all the past and present sufferings of humanity that "all is good," in the signifi-

cance that "all things work together for good" (Rom. 8:28), which they believe to be true not only of those who "love God" but also of those who do not. This, however, does not imply that they are content with existing conditions; for, as regards these, they, of all persons, owing to their high ideals and lofty aspirations, are, probably, the most dissatisfied. Nor is it to be inferred for one instant that the advocates of mental healing are necessarily cold, heartless and insensible to the pain and misery in the world. On the contrary, no class of people are, perhaps, so tender-hearted and sympathetic. How, then, can they sincerely affirm that "all is good"? Because they perceive that pain and misery arise of necessity from human imperfection and limitation; that there is a power in spirit to triumph over them and that, when rightly understood, they are friendly and beneficent.

I. THE KINGDOM OF GOD

Such being the case, they naturally believe in the possibility of establishing the reign of harmony, peace and joy among men here and now. In the second chapter of Isaiah we read: "And it shall come to pass in the last days that the mountain of the Lord's house shall be established in the top of the mountains, and shall be exalted above the hills; and all nations shall flow unto it. And many people shall go and say, Come ye, and let us go up to the mountain of the Lord, to the house of the God of Jacob; and he will teach us of his ways, and we will walk in his paths; for out of Zion shall go forth the law, and the word of the Lord from Jerusalem. And he shall judge among the nations, and shall rebuke many people; and they shall beat their swords into plowshares, and their spears into pruning hooks; nation shall not lift up sword against nation, neither shall they learn war any more."

These words—and we might quote other passages of

similar import from the Old Testament prophets—come from the lips of a seer, an idealist, one whose spiritual vision penetrates beyond all external phenomena and lays hold of that which is within the “vail” (See 2 Cor. 3:5-18). He has entered the “holy place” of the “most High” and beheld Him “face to face.”

We could not, however, make a greater mistake than to suppose that the mass of the people to whom he was speaking saw things from his standpoint and with his clearness of spiritual apprehension. Not so. He stands almost alone among a host of those who are dwelling in the realm of sense perception, and have not yet risen in soul unfoldment to the lofty heights of spiritual vision. Proof of this is most strikingly manifested, not only in the political history of this nation, but also in the religious teachings of the Jewish Rabbis, extending from the time of the Old Testament prophets down to that of Jesus. With the gradual growth of a belief in a real life beyond the grave, there comes the transference of the reign of universal peace to some unknown clime beyond the limits of sense perception. In imagination teachers of theology construct a Paradise for all who become Jews and are faithful in their observance of external forms and ceremonies, and a Gehenna or Hell for all others. Their philosophy is of the crudest sort, born of a total misapprehension of man's relation to God, accompanied, naturally, by utter despair as to the redemption of mankind from sin and misery in their present mode of existence.

Into this condition of things Jesus was born, the greatest of all the prophets, the very Messiah, the “Prince of Peace.” Heaven and earth meet again and as never before. He proclaims “the kingdom of heaven is at hand” (Mat. 4:17), and proceeds to make his declaration an actuality. He shows the people how this can be done, and teaches men and women not only to pray, but also to labor, for the establishment of the kingdom of

God on earth (Mat. 6:10, 7:21). A new era opens, fraught with hope for humanity as the inevitable result of a better understanding of the true relation between God and man. No wonder that the Apostle John tells us that in apocalyptic vision he saw "the holy city, new Jerusalem, coming down from God out of heaven prepared as a bride adorned for her husband. And I heard a great voice out of heaven saying, Behold, the tabernacle of God is with men and he will dwell with them, and they shall be his people, and God himself shall be with them, and be their God. And God shall wipe away all tears from their eyes; and there shall be no more death, neither sorrow, nor crying, neither shall there be any more pain: for the former things are passed away" (Rev. 21:2-4).

This idea of the possibility of the realization of God's kingdom upon earth continued to survive in the Christian church for nearly three centuries. Then for more than fifteen hundred years it becomes almost engulfed in a mighty maelstrom of materialistic thought and metaphysical speculation. Again, as in the period following that of the Old Testament prophets and preceding the birth of Jesus, the place for the realization of the kingdom of heaven is banished from our earth. Likewise, as formerly Jewish, so now Christian theologians, from their own imagination and fancy, relegate the abode of bliss and joy to some other world. Hell, purgatory and heaven are made to stand over against each other in striking contrast, and salvation to come after the dissolution of the body to those, and those alone, who perform the proscribed rites and accept unquestioningly the proscribed creeds. Later Protestantism arises, retaining the old ideas of heaven and hell, but leaving out purgatory and, in this respect, making the salvation of the sinner even more hopeless than before.

More recently, however, and especially during the latter half of the nineteenth centry, a wave of idealism

or spiritualistic thought began gradually to manifest itself and has already attained such breadth and power that it bids fair to become a very potent influence for good, if not to carry everything before it. Confirmation of this is seen in the almost magical growth of the mental healing movement, many of whose members, possessed of the spirit of Christ and firm in the conviction that their efforts can not be in vain, believe that they, too, should not only pray but also labor for the immediate coming of God's kingdom.

1. The Relation of God to Man

On what, then, do they base their hope and faith in so grand an undertaking? It is based in the first place on the belief or, rather, perception of the unity of God and man. They maintain that the incarnation is not specific, but universal; that the saying of Jesus, "I and my Father are one" (Jn. 10:30), is not true of him alone but of all human beings, although they may lack a self-conscious perception of it; that when Jesus said to his disciples, "Call no man your father upon the earth: for one is your Father, which is in heaven" (Mt. 23:9), he meant just what he said, signifying that every soul proceeds directly from, and is eternally in union with, God, and that human parents or physical forms are simply the media through which God or Universal Spirit comes forth to concrete manifestation; that just as the tree is rooted in the ground, so is every person "rooted and grounded" in Deity; that just as the branch proceeds from and is inseparably connected to the vine, so is every human soul bound to God by ties that can never be severed; that not only all life but all power is of God and that all anyone can do is simply to use it; and they are of the conviction that this is the conclusion to which everyone must come who thinks deeply of himself and of the source of all he has and is.

2. The Nature of Deity

It is based in the second place on the perfection of Deity. This idea has been held by the most profound ethical philosophers for ages. It forms the very foundation of the entire ethical or spiritual teaching of Jesus of Nazareth. We are told in the eighteenth chapter of Luke's Gospel that one day a certain ruler asked Jesus, "Good Master, what shall I do to inherit eternal life?" To which Jesus replied, "Why callest thou me good? None is good, save one, that is, God." This idea of God as the only good follows naturally from the fact that God is "all in all." This same thought of the Divine perfection is also expressed very clearly and beautifully in the fifth chapter of Matthew, especially the last few verses: "Ye have heard that it hath been said, Thou shalt love thy neighbor, and hate thine enemy. But I say unto you, Love your enemies, bless them that curse you, do good to them that hate you, and pray for them which despitefully use you, and persecute you; that ye may be the children of your Father which is in heaven: for he maketh his sun to rise on the evil and on the good, and sendeth rain on the just and on the unjust. . . . Be ye therefore perfect, even as your Father which is in heaven is perfect."

Such a conception excludes the idea of an angry, jealous or unforgiving God, using the word unforgiving in the sense of cherishing feelings of hatred or resentment. If the saying in the seventh Psalm, "God is angry with the wicked every day," is to be taken as literally true according to a widely prevalent theological interpretation, then, inasmuch as anger causes pain, and the wicked, from the standpoint of this teaching, always have been and always will be, God himself must live in a perpetual or eternal hell. Moreover, what we have said of anger holds true of jealousy, revenge and every inharmonious thought and feeling.

Furthermore, if these mental states are right for God and not for man, then the moral standard for the creature is higher than that for the Creator, and, if anyone should attain this, he would be more perfect and, consequently, more worthy of worship than Deity himself.

On the basis of the assumption of a revengeful Deity, Jesus, as pictured in the gospels, is more adorable than the Father, and,—owing to this fallacy, which, were it not advanced in ignorance, would be the most shocking blasphemy,—unconsciously if not consciously, has practically been so regarded by the great mass of Christian worshippers. Of course, what is true of Jesus would be equally true concerning all pure and loving men and women of all nations and of all ages.

3. The Essential Nature of Humanity

Third and lastly, it is based on the intrinsic perfection of humanity. If, in the deepest and truest sense, “we live, and move, and have our being” in God (Acts 17:28), and God himself is perfect, it follows logically that man, as to his essential or real nature, is likewise a partaker of that same perfection. This is not the same as saying that man is complete and devoid of all limitations and imperfections, so far as his self-conscious development or knowledge is concerned. We know that such is not the case. It does imply, however, that every human being is primarily perfect and in the “image of God” (Gen. 1:27); and that no amount of false conceptions—which are the fruits, according to Paul, of the carnal mind (see Rom. 8:1-14; Gal. 5:14-25) and, as we have shown, are inwrought and outpictured in the body in various forms of disease—can blot out this identity.

II. BENEFICIAL RESULTS FLOWING FROM THIS
PHILOSOPHY

In closing we will state briefly some of the practical and beneficial results that must flow from this sort of philosophy, taking up these fundamental laws or principles in the order in which we have stated them.

1. From the Idea of the Unity of God and Man

There follows from this, in the first place, the fact of immortality. If every person is God "manifest in the flesh" (1 Tim. 3:16), and so stands in vital relation with universal mind or spirit, then the truth of man's eternal destiny is fixed beyond all possibility of doubt. He can no more perish than the Creator himself. Hence the truth of the assertion so often seen in metaphysical writings and so often found upon the lips of mental healers, "There is no death." To be sure, the body, the physical form, may dissolve and disappear, but the ego, the real self, must remain intact and can never be destroyed or suffer harm. Thus viewed, life is one continuous onward flow, with no breaks, no retrogressions. "No act falls fruitless." Every experience is beneficial and helpful. Every right hope, aspiration, and longing shall find complete and certain satisfaction. The end to be attained is the "manifestation of the sons of God" (Rom. 8:19), or, in other words, our self-consciousness to come into harmony with, and be swallowed up in an all-absorbing God-consciousness, resulting in the fulfillment of Jesus' prayer "that they all may be one; as thou, Father, art in me, and I in thee, that they also may be one in us" (Jn. 17:21), which is the goal of human unfoldment.

It follows secondly that if God and man are one, we are as near God now as we ever shall be. In fact, we cannot get away from Him. Says the Hebrew poet, "Whither shall I go from thy spirit? or whither shall I

flee from thy presence? If I ascend up into heaven thou art there: if I make my bed in hell (Sheol), behold, thou art there. If I take the wings of the morning and dwell in the uttermost parts of the sea; even there shall thy hand lead me, and thy right hand shall hold me" (Ps. 139:7-10).

If this be true, there is no personal or anthropomorphic God dwelling afar off in space, with whom the so-called "good" and "pious" go to dwell when they pass away from earth. So far as location is concerned, God always has been, is, and ever will be, just as near the so-called "wicked" as the so-called "righteous," for, to quote the language of the Apostle, he is "not far from everyone of us" (Acts 17:27) and is "above all and through all and in all" (Eph. 4:6). The union of every soul with God must forever remain, but individuals may, and do, differ in their self-conscious perception and realization of it. Jesus tells us that the condition of seeing God is "purity of heart" (Mt. 5:8). If so, no one need pass out of the body to witness the Divine presence. Moreover, no person ever has been, or ever can, or ever will be banished from the face of the Almighty through any act of Deity. Nor can he through any act of his own, only in so far as his ability and freedom to indulge in false ideas and delusions enables him to do so, and even this is in appearance merely and not in reality.

There follows, in the third place, the doctrine of the "solidarity" of the race. This is what is meant by the phrases so often on people's lips and yet so little understood and practically applied, the "Fatherhood of God" and the "Brotherhood of Man." If, as the Apostle Paul declares and we have quoted previously, God is "all in all," then there is in truth but one Mind, one Life, and one Power throughout the universe, nor could anyone exist for one moment were it not owing to a continuous influx from the "one sole substance." Hence it follows that, as the Psalmist says, "The earth is the Lord's and

the fullness thereof; the world and they that dwell therein" (Ps. 24:1); that all there is belongs to, or, better, perhaps, is of God, and we are simply the users of it. This principle, practically applied, would put an end to all strife between sexes, nations, organizations, families, and individuals. All selfishness would disappear, and bitter competition give place to friendly co-operation. All pride, envy and jealousy would forever cease, while humility, love and benevolence would reign in their stead. This would lead to an increase, not only of human happiness, but of material possessions as well. Nothing could be truer or more practical than the saying of Jesus, "Seek ye first the kingdom of God, and his righteousness; and all these things shall be added unto you" (Matthew 6:33).

2. From the Idea of the Perfection of Deity

That "God is love" (1 John 4:8) is a conclusion that everyone must sooner or later have come to on the basis of his own experience. That God can be a God of love and of anger is rationally impossible of acceptance, although many do not seem to perceive the inconsistency of holding the opinion that for a Deity to have revengeful feelings is no reason why he should not be regarded as absolutely perfect. Perhaps no delusion has caused so much suffering to humanity as the fear of an angry or offended Deity. In connection with the history of the Aztecs we read that at one time floods, frosts, snow and drought came upon the valley of Mexico and the surrounding region, resulting in famine, epidemics, plagues, and pestilence. All in, and most out of, the valley were affected. The royal granaries having failed, fish, reptiles, birds, and insects formed the only food for the masses. The suffering and death among the lower classes was terrible. Thousands of the poor sold themselves into slavery. These national disasters were attributed to the

anger of the gods. To appease them, human sacrifices were resorted to. The sick and famishing plebeians were not considered good enough for this purpose, and, therefore, the following strange compact was entered into: Three nations in the valley and three on the eastern plateau agreed to engage in battle at certain times and places, foes being equal, and those taken captive on either side were to be sacrificed to their gods. Likewise we are told that at the dedication of a single temple between seventy and eighty thousand captives were slain. This same idea of an angry and revengeful deity, arising from ignorance and a false interpretation of certain phenomena of sense perception, was prevalent among the ancient Hebrews, and is brought out in the strongest and most terrible fashion in certain passages of the Old Testament scriptures (See Num. 25:3-4; Deut. 29:20; Judges 2:14; Ps. 2:5; Isa. 13:9; Micah 5:15).

Strange as it may seem, these barbarous conceptions have found their way into so-called Christian theology, and, as used in connection with "revivals," have been attended with most appalling consequences. Says a noted English writer on psychological phenomena: "Were we to take our description of the scene often presented on such occasions from the accounts of one which occurred more than half a century ago in Cornwall (when four thousand in various towns—Falmouth, Redruth, Camborne, etc., were convulsed) and compare it with the descriptions so frequently given in recent times of the effects produced in America, Ireland, and England by excited harangues and denunciations of eternal perdition, we should not fail to find a striking similarity in the symptoms. For instance, the account given in *Fothergill and Want's Medical and Physical Journal*, so long ago as 1814, would do as well now as then for one class of cases. Thus, we find: Yawning, violent spasms of the muscles of the eyelids, the eyeballs themselves being

fixed and staring, frightful contortions of the countenance, then convulsions (passing downwards) of the muscles of the neck and trunk, sobbing respiration. General agitation and tremors, the head thrown from side to side, convulsive beating of the breast and clasping the hands, accompanied by many frightful gestures, followed, the lower extremities alone escaping. At Ballymena, at the commencement of the Irish revivals, in our own day, the physical phenomena were very similar, and others were present of a more tetanic character. We are indebted to Dr. Massie's *Revivals in Ireland* for the following illustration of the influence of the emotions upon the body, especially the muscular system: A neatly attired young woman, about 22, had been stricken an hour previously and was supported in the arms of an elderly female, who was seated upon a low stool. Her face was deadly pale, her eyelids firmly closed, except when partially raised by a convulsive paroxysm, and then no part of the eye was visible except a narrow line of white; pulse intermittent; great perspiration; arms extended or elevated, and then the hands clasped with great energy, and her features rigidly fixed into an expression of supplication; utterance rather incoherent; agonizing expressions of despair. A striking expression is employed in one description of the stricken. 'In all cases it appeared as if every fibre of the heart and every muscle of the body were wrung with the same excruciating torture.' A young woman is described as lying extended at full length; her eyes closed, her hands clasped and elevated, and her body curved in a spasm so violent that it appeared to rest, archlike, upon her heels and the back portion of her head. In that position she lay without speech or motion for several minutes. Suddenly she uttered a terrific scream, and tore handfuls of hair from her uncovered head. Extending her open hands in a repelling attitude of the most appalling terror, she exclaimed, 'Oh, that fearful pit!' During this paroxysm

three strong men were hardly able to restrain her. She extended her arms on either side, clutching spasmodically at the grass, shuddering with terror, and shrinking from some fearful inward vision; but she ultimately fell back exhausted, nerveless, and apparently insensible. In a third case, the face of a woman was deadly pale, the features rigid, the lips clenched, the hands clasped firmly together, and the head moved from side to side, as if to indicate internal agony" (6:219-20).

If these revivalists had caused such excruciating torture and wrecked so many precious lives otherwise than in the name of religion there is every reason to suppose that they would either have been hung by an infuriated mob, or at least have paid the penalty by lifelong confinement in some jail or asylum for the insane. We have, however, every reason to believe that most of them were honest men and, like Paul while persecuting the early Christians, "did it ignorantly (I Tim. 1:13). Yet it is hard to understand how those who "profess and call themselves Christians" can so utterly misunderstand the entire spirit and teaching of Jesus. Perhaps, owing to improper instruction and a lack of spiritual discernment, they were led into this error through the false and pernicious doctrine of an "infallible" Bible; for, as we have already shown, they could have found justification for such ideas in certain phases of Old Testament teaching. Fortunately such preaching is rapidly passing away, for people are becoming too good and too intelligent to believe that a diabolical spirit can ever find expression through an All-Perfect being, and no teaching is more conducive to this end than that which is to be found in the philosophy of mental or psychic healing.

Another principle which necessarily proceeds from the idea of the divine perfection is that God is no "respector of persons." That God is a respector of persons forms a fundamental idea of certain books in the Old

Testament writings. It is exemplified in the most striking manner in connection with the patriarchs, Abraham, Isaac and Jacob, and especially in the deliverance of the Israelites from Egypt and their conquest of the promised land. That the Creator of all mankind could have told the Israelites to "utterly destroy" the men, women and children in the cities they captured (see Numb. 21:2, 3; Deut. 7:1, 2; 20:16, 17; Josh. 11:1-12) is absolutely inconceivable in the light of Jesus' teaching and the dictates of reason. No wonder that Colonel Ingersoll or any one with the least particle of humane sentiment should not only ridicule, but also abominate such a conception of One whose name is Love. If God is the father of all mankind and no respecter of persons, those nations, whom the Israelites are said to have conquered, were just as dear to him as the Israelites themselves.

The promulgation of the belief among the Jews that they were the special favorites of God, emphasized in their sacred writings by the most marvelous accounts of Divine interposition in their behalf, not only favored the arising of many a false Messiah, followed by the most disastrous consequences to them as a nation, but also led, at least in part, to their rejection of the true Messiah, who was too wise and too good to be carried away by any such delusion. The power of this conception over the people as a whole may be inferred from the example of Peter, who, notwithstanding his having been for three years a disciple of Jesus, had to learn through a vision and angelic communication that "God is no respecter of persons; but in every nation he that feareth him and worketh righteousness is accepted with him" (Acts 10:34, 35).

The same fallacy has imbued Christian theology as expressed in certain doctrines of foreordination, election, special or exclusive inspiration of the Biblical writers, and in the contempt which has been shown

towards all religions except the Jewish and Christian. From the standpoint of mental or spiritual science there is no national or individual favoritism on the part of God, but all are equally favored since He is "all in all."

3. From the Idea of the Inherent Perfection of Humanity

This idea, based on man's oneness with Deity, is a contradiction of the doctrine of total depravity, which was debasing in the highest degree, since it kept the mind centred on the negative and imperfect rather than on the positive and perfect. By this means one was led to regard himself as a "poor worm of the dust," weak, sinful and helpless. The result was gloom and utter despair, together with a low opinion of self and others. Mental or spiritual science, teaching the divinity of humanity, has just the opposite effect, inspiring faith and hope, a noble self-reliance, profound respect for every one, and a consciousness of power to overcome every weakness or temptation and to triumph over all obstacles—not because of a boasted self-sufficiency, but because "with God, all things are possible" (Mt. 19:26). It helps us not to despise any one, however poor, repulsive or degraded he may be, since the divine image is there no matter what mere outward appearances may seem to indicate. It also helps us more readily to love even our enemies and to do good to those who hate us. In short it helps us to manifest more easily the spirit of the Christ, because we see things from the standpoint of the within rather than of the without. Hence no place for a spirit of harsh criticism, resentment or bitter condemnation. It does not cause one to approve and love but to show compassion towards and seek to remedy all manifestations of human imperfection, knowing that all so-called sin and wickedness are due to ignorance and a lack of spiritual attainment.

Furthermore, if God is perfect and man created in the image of God and perfect, then does it not logically follow that disease in all its aspects is no part of God's creation and no essential part of man's nature? It does arise, as is proved by the demonstrations of physical as well as of metaphysical science, in no small measure from anger, fear, anxiety and other inharmonious states of thought and feeling. Moreover, to what extent man's evil or discordant thoughts are a cause of those conditions in the so-called outer world, which are conducive to disease, has never been determined. Is there a perfect remedy? From the point of view of *Materia Medica* alone the case would appear to be utterly hopeless; for, in spite of all its upholders can do, pain and sickness have steadily prevailed if not increased. Not so, however, from the standpoint of mental or psychical science. The advocates of this method of healing believe that, inasmuch as man is essentially spirit or one with Deity and not matter as usually conceived or understood, disease is no inevitable or necessary part of man's being; that it is possible to attain a state of moral or spiritual perfection which shall resist and remove the most fatal disorders; that Jesus of Nazareth, as recorded in the gospels, did, without any material aids whatsoever, heal "all manner of sickness and all manner of disease among the people" (see Mt. 4:23; Mk. 1:34; Lk. 4:40); that, as he declared, it is possible for others to do the same (see Mt. 10:1-8; Jn. 14:12) and to come into a state of consciousness such that if they "drink any deadly thing it shall not hurt them" (see Mk. 16:18; Lk. 10:19). Relying upon the truth of these statements and of the principles exemplified in this work the champions of mental healing have entered into this conflict with the cause of "all our woes," and have met with such marked success that hope has taken the place of despair and an enslaved humanity is beginning to rejoice in the glorious

prospect of deliverance from the bondage of false philosophies and the chains of mortal or carnal sense.

Such, then, is the relation of mental or psychic healing to the welfare of humanity, both as regards its fundamental principles and their practical application, as viewed by one who belongs to no particular sect or school but has sought to investigate it impartially on a purely scientific and rational basis in order to get at the absolute facts. The healing of disease is, as we have seen, merely incidental, since it includes within its scope the complete development of every faculty and the perfect manifestation of God in every human being. Thus viewed, as it seems to us, it is not in conflict with any branch of physical or metaphysical science in so far as their teachings are capable of demonstration and, if presented in a kind and catholic spirit, we feel assured that it will commend itself to all who sincerely desire to know the truth, and to do all in their power to relieve suffering humanity and help every struggling soul to a purer, nobler and more perfect life.

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